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ANNUAL REPORT

OF THE

Minnesota State Agricultural Society

FOR THE YEAR 1902.

Containing Secretary's Report to the Governor, Proceedings of the Society, Board Meetings, Financial Statements, Including Auditor's and Treasurer's Reports, Statement of Awards and Purses Paid, and Reports from District and County Societies.

COMPILED BY E. W. RANDALL, SECRETARY.
HAMLINE, MINN.

ST. PAUL
Pioneer Press Company
STATE PRINTERS
1903

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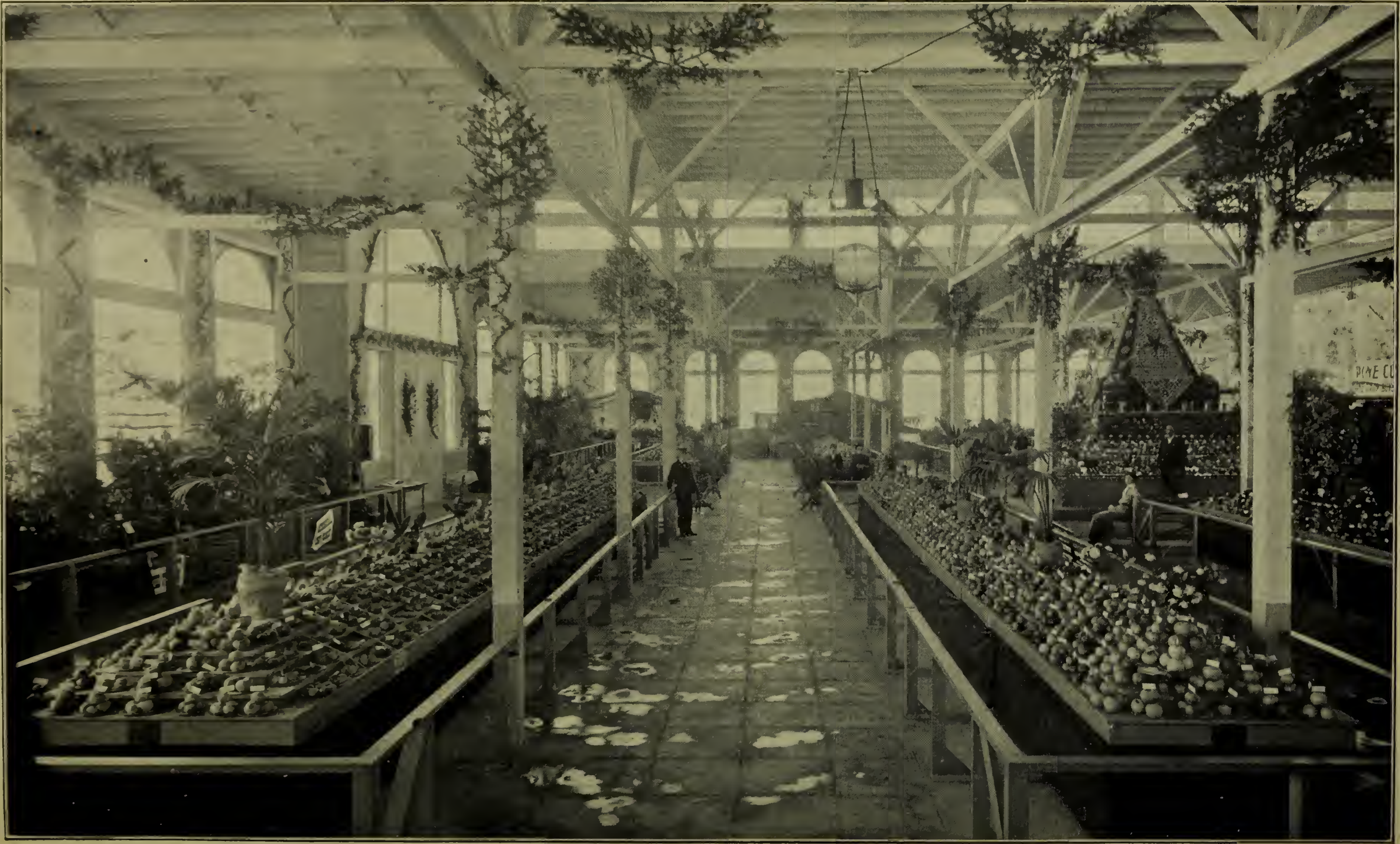

HORTICULTURAL HALL.

ANNUAL REPORT

OF THE

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FOR THE YEAR 1902.

Containing Secretary's Report to the Governor, Proceedings of the Society, Board Meetings, Financial Statements, Including Auditor's and Treasurer's Reports, Statement of Awards and Purses Paid, and Reports from District and County Societies.

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MINNESOTA STATE AGRICULTURAL SOCIETY.

OFFICERS AND BOARD OF MANAGERS, 1902.

President—C. N. COSGROVE, Le Sueur.
First Vice President—CHESTER R. SMITH, St. Paul.
Second Vice President—B. F. NELSON, Minneapolis.
Secretary—E. W. RANDALL, Hamline.
Treasurer—F. J. WILCOX, Northfield.

Board of Managers.

J. M. Underwood, Lake City	Term expires 1903
L. D. Baird, Austin	Term expires 1903
W. M. Liggett, St. Anthony Park	Term expires 1904
W. G. Sawyer, Partridge	Term expires 1904
N. S. Gordon, Crookston	Term expires 1905
J. C. Curryer, St. Paul	Term expires 1905

SUPERINTENDENTS OF DIVISIONS.

A. Horses—J. C. Curryer, St. Paul.
B. Cattle—W. M. Liggett, St. Anthony Park.
C. & D. Sheep and Swine—J. C. Mills, Preston.
E. Poultry—Leslie Parlin, St. Paul.
F. Dairy Produce—B. D. White, St. Paul.
G. Horticulture and Floriculture—J. M. Underwood, Lake City.
H. Honey, Apiary and Sugar—N. S. Gordon, Crookston.
J. Vegetables, Grain and Farm Produce—N. S. Gordon, Crookston.
K. Woman's Department—B. F. Nelson, Minneapolis.
Assistant Superintendent Woman's Department—Mrs. M. L. Luther, 523 Forest avenue, Minneapolis.
L. Exposition Building—B. F. Nelson, Minneapolis.
M. Machinery, Farming Implements and Carriages—W. G. Sawyer, Partridge.
Amusements—Chester R. Smith, St. Paul.
Gates—R. H. Cosgrove, Le Sueur.
Police—J. M. Underwood, Lake City.
Forage—W. M. Liggett, St. Anthony Park. Assistant Superintendent, E. H. Riley, St. Cloud.
Privileges—L. D. Baird, Austin.
Farmers' Institute—O. C. Gregg, Lynd.
Grounds—E. W. Randall, Hamline.

STANDING COMMITTEES.

Executive—Liggett, Underwood, Nelson, Smith.
Reception—Sawyer, Curryer, Gordon, Baird.
Auditing—Underwood, Liggett, Smith.
Amusements—Smith, Underwood, Nelson, Liggett.
Advertising—Baird, Liggett, Gordon, Sawyer.
Transportation—Nelson, Sawyer, Curryer, Gordon, Smith.
Privileges—Gordon, Curryer, Underwood, Baird.
Tickets—Curryer, Baird, Nelson, Sawyer.

Minnesota State Agricultural Society.

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FINANCIAL STATEMENT.

RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING DECEMBER 10, 1902.

St. Paul, Minn., Dec. 9, 1902.

To the Honorable the Legislature of the State of Minnesota:

Pursuant to Section 4, Chapter 181, of the General Laws of one thousand eight hundred and eighty-seven, the undersigned board, created by virtue of said act, hereby respectfully reports: That we have examined the books and records of the officers of the Minnesota State Agricultural Society and find them to be correct.

The receipts and disbursements for the year are as follows:

RECEIPTS.

Balance on hand Dec. 10, 1901	$37,604.32
State appropriation	4,000.00
Ticket sales	100,298.60
Stall rents	1,788.50
Forage	1,736.13
Privileges	15,905.70
Races	12,168.25
Rents	631.50
Official program	3,122.10
Butter sold	1,042.32
Premiums paid by Shorthorn Association	1,735.00
Good roads fund	300.00
Miscellaneous receipts	576.63
	$180,909.05

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DISBURSEMENTS.

Accounts of former years	$490.58
Attractions	9,744.00
Advertising	8,477.77
Forage and fuel	2,788.43
Labor	4,289.10
Officers' salaries	5,600.00
Postage, telegrams, express	620.00
Premiums	21,432.43
Purses	16,575.00
Superintendents, assistants, judges, police, gatemen, ticket sellers	12,151.60
Permanent improvements and repairs	30,945.88
Expense	12,550.62
Balance on hand Dec. 10, 1902	55,243.64
	$180,909.05

S. R. VAN SANT, Governor,
J. V. BROWER,
W. A. COWING,
E. S. PETTIJOHN,
Board of Audit.

ANNUAL REPORT

OF THE

Minnesota State Agricultural Society

FOR THE YEAR 1902.

SECRETARY'S REPORT.

In compliance with law, the annual report of the secretary of the Minnesota State Agricultural Society, including a report of the affairs of the society for the fiscal year ending Dec. 10, 1902, with the report of the state board of audit, is herewith presented.

The work of the year has been successful in all branches. The exhibits in number, variety and educational value, have surpassed all previous exhibitions. The report of each division superintendent is herewith included. Special attention is called to these reports. The work in each department is outlined; the magnitude of the exhibits; the amount paid in premiums; the name and address of those to whom awards were made; recommendations for the future, etc. Each department has been in charge of an expert in the particular industry represented and each has kept pace with the general progress of the fair.

In amusements, a high standard has been maintained. The speed programme, with its numerous and large purses, attracted the most prominent horsemen and the best horses in the country and the contests were spirited and interesting both afternoon and evening. Interspersed with the races were the best specialty acts that could be secured, balloon ascensions, music, etc., closing each night with Pain's spectacular, pyrotechnic exhibition, "The Siege of China" or "The Fall of Pekin." The grand stand was crowded with eager people during each afternoon and evening of the week, indicating in the most forcible way the general public interest and approval of the amusements provided.

The fair was kept open day and night. The grounds and buildings were well lighted and all of the exhibition departments, except the machinery and live stock, could be seen and studied at night as well as during the day. Keeping the grounds open at night results in a largely increased attendance, a more general interest, and for the last four years has been so prolific in results that the plan may now be considered one of the fixed policies of the fair.

To show the constant and rapid growth in the fair, the amount of ticket sales, as well as the total receipts for each year since the World's Fair at Chicago, is given:

Year.	Total Receipts.	Ticket Sales.
1894	$32,857.86	$21,712.62
1895	49,755.88	35,777.67
1896	55,515.55	41,566.42
1897	48,580.30	30,634.90
1898	57,611.59	36,951.75
1899	88,711.91	52,070.45
1900	90,524.40	65,553.90
1901	113,835.63	87,072.15
1902	143,304.73	100,298.60

In these amounts, balances carried forward from respective years are omitted, so that each year's actual receipts show clearly. These figures speak eloquently of increased interest, larger exhibits, more general attendance and better results in every way.

Years ago, the fair was in debt and the management was constantly embarrassed for lack of funds. Fortunately this is not now the case. The last indebtedness disappeared in 1895, since which time there has been a good cash balance in the treasury at the close of each fiscal year. As showing that surplus funds have been judiciously used, a record of the close relation between the balance on hand at the close of each of these years and the amount expended for betterments the years following, will be of interest:

Balance on hand Dec. 10, 1895	$5,816.32
Expended for permanent improvements in 1896	4,559.00
Balance on hand Dec. 10, 1896	6,112.75
Expended for permanent improvements in 1897	2,041.79
Balance on hand Dec. 10, 1897	9,412.11
Expended for permanent improvements in 1898	4,286.19
Balance on hand Dec. 10, 1898	9,172.87
Expended for permanent improvements in 1899	9,725.30
Balance on hand Dec. 10, 1899	15,230.37

Expended for permanent improvements in 1900	11,502.07
Balance on hand Dec. 10, 1900	18,285.61
Expended for permanent improvements in 1901	17,576.19
Balance on hand Dec. 10, 1901	37,604.32
Expended for permanent improvements in 1902	30,945.88

You will notice that the surplus fund of one year becomes substantially the permanent improvement fund of the next; unless there is rain to cut down revenues and make it necessary to use the money or a part of it for the payment of premiums or other current expenses, as instanced in 1897 and 1898. The money is always judiciously expended, where most needed and is prolific in results. When, then, visitors rally to the fair in such numbers as to produce a revenue beyond immediate necessities, they may feel sure that the money they expend for tickets will be used, all of it not needed for current expense, in broadening the work of the institution and adding to its permanence and its utility. It is bread cast upon the water in a most practical way.

Work in bettering the grounds and buildings has been carried on constantly during the year that is passed. The large addition to the grand stand has been completed; a sheep barn 144x144 has been built; another speed barn has been added; a fire engine house erected; a hog barn 144x160 is in course of construction; new roofs have been put upon the carriage and old horticultural buildings; about three-fourths of a mile of eight-foot tile sidewalk has been laid; a gravel road from the St. Paul team gate to the west side of the grounds has been constructed; painting has been done; trees planted; considerable grading has been undertaken and numerous other items of improvement have been cared for. The equipment of the fair, while still inadequate, is much better than a year ago.

There is an imperative need for new buildings. A live stock amphitheater of ample dimensions should be built this year. As stated by the superintedent of the cattle department, Minnesota is greatly lacking in accomodations for the judging and sale of cattle, and exhibitors are anticipating coming here this year with the privilege of showing in an amphitheater that will do credit to this great fair and should not be disappointed. A manufacturers' building, of ample dimensions and equipped with light and power, is also greatly needed. The articles manufactured in Minnesota are numerous and valuable and should have a place in this annual exhibition of the state's products and resources. The society has done considerable and can do more in making permanent improvements, but a suitable live stock amphitheater and a manufacturers' building are both beyond its resources and it is necessary to ask the legislature to make an appropriation for them. The machinery building, which has been needed for so many years, will be built by the society and paid for from its surplus revenue.

As the State Fair continues to develop year by year, its value to the state and to the northwest becomes more and more apparent. It is now recognized as an important educational force and as perhaps the most effective advertising medium which the state possesses.

The educational work of the fair is broad and thorough. It is by no means confined to the week of the fair; it is carried on indirectly through much of the year. Of first importance, of course, is the opportunity afforded during fair week for the study of animals, products, methods, machinery and men. The popular impresssion is that this opportunity is for the farmer only, and that only the farmer is benefited, but it seems obvious that the great number of city people who attend the fairs are broadened in mind and receive much practical information through an inspection of the exhibits. High authorities have held that there is more to be learned in a single day at the fair than in double the time at any school or college. The general closing of the public schools during fair week is assisting in making this educational work more effective. The children learn easily by observation and it is to be regretted that more of them do not have opportunity to visit the fair. And beyond these direct educational influences are the inevitable social results—the education of country folk and city folk alike through commingling together, touching elbows and getting acquainted. This annual gathering of the people of Minnesota has no counterpart in other states, for in no other state is there such a large number of visitors at a state fair or so large a percentage of urban attendants. It is a most excellent thing. The horizon of both city people and country people is broadened, prejudices are obliterated and there is a general promotion of mutual respect and better mutual understanding.

The state fair is doing much to advertise Minnesota. The fame of this fair has gone abroad over the United States and into foreign lands. Since the great national cattle shows have been held here, the state has been winning a reputation as a grazing region which is quite at variance with that which it formerly enjoyed. In time Minnesota will come to be known, not only as "The bread and butter state," but as the state in which bread and butter and meat and fruit and milk and honey and many other goods things of life are produced in abundance. It is this broadening of the reputation of the state which is the best possible advertisement. Intelligent farmers in other and older states look with suspicion upon a region which is known as a "one crop" country. When they know Minnesota is rich in all the branches of field and animal husbandry they will come in greater numbers. The work of this society has greatly increased the information of the country at large regarding Minnesota and much of the immigration of recent years and the consequent large advance in the value of farm lands should be credited to the fair. The population, commerce, production and wealth of the state is constantly increasing. The state fair marks each year's progress and continually points the way to further development.

Respectfully submitted,
E. W. RANDALL,
Secretary.

PROCEEDINGS OF THE ANNUAL MEETING

OF THE

Minnesota State Agricultural Society.

St. Paul, Minnesota, January 13, 14 and 15, 1903.

In accordance with law and pursuant to call, the annual meeting of the Minnesota State Agricultural Society was held at the rooms of the Commercial Club, St. Paul, Minn., Jan. 13, 14 and 15, 1903.

Meeting called to order by President, Jan. 13, 1903, at 10 o'clock a. m.

Prayer by Geo. H. Bridgman, D. D.

President: I have a letter from Governor Van Sant, in which he states:

"I expected to have the pleasure of meeting you on the morning of your meeting, but I fear it will be impossible for me to do so, as I expect to be in Albert Lea at that time, and I wish you would extend my greetings to the society.

Yours very truly,
S. R. VAN SANT."

After receiving this letter, I called at the governor's office and asked if he could arrange to have some one represent him. It was expected that Judge Jamieson would represent him here this morning, but they telephoned me from the office a few moments ago that Judge Jamieson has been delayed and has not yet reached the office and will be unable to be present. It will be a source of regret with the governor. He was with us a year ago and desired to be with us this morning.

The next in order is the appointment of committees.

A delegate: I move that a committee on credentials be appointed by the Chair. Motion seconded.

Chair: It is moved and seconded that a committee of five on credentials be appointed by the Chair. Motion put and carried.

Moved and seconded that the Chair appoint a committee of five on resolutions.

Motion put and carried.

Chair: I now have the pleasure of introducing to you Mr. T. B. Terry of Ohio, who will address you on the subject, "Will Better Farming Pay?"

Mr. Chairman and Gentlemen: It seems a little singular that I should get up before an audience who have all made good farming pay. I would much rather talk on this subject to an audience of farmers such as we have in the small towns, at their institutes. However, there are some things that it is well for us to consider. I cannot tell you anything new, but possibly I may bring up old truths and put them together in a form that will interest you and cause you to think somewhat in a new line. The great question among farmers all over this country today is the matter of fertility. You go anywhere you wish, if a farmer has rich land, strong, thoroughly manured land, with ordinary management, he is doing well; and I can show you thousands and thousands of farmers on land that is not fertile, and they work just as hard and barely make a living; and it is the fertility of the land, its ability to grow large crops, that gives farmers a chance to succeed and to make farming profitable. I am not going to give you any thereory to-day in regard to anything that I do not know—that I have not worked out from the very foundation up. About thirty-three years ago my wife and I bought and moved onto a little farm in northeastern Ohio that had been farmed for some fifty or sixty years carelessly, and everything sold off and nothing put back—run down until it would produce hardly anything. We went on there in debt for the land, without any money, and saw some pretty hard times at first; you all know, almost starved to death the first two or three years; and what were the crops? Oh, anywhere from nothing up to possibly six or eight bushels of wheat per acre. The corn crop the first year was never harvested. It grew, but there was not enough strength in the land to put ears on it. We put in one acre of potatoes and we had about forty bushels, big and little—they were about all little. I mowed about 45 acres of what they called the improved land, put the hay in the barn, and it measured twelve tons. That is the poverty in the land. Still, within a dozen years, right on that farm, without having brought into play any of the modern artificial fertilizers, we grew from thirty to forty bushels of wheat per acre. We were growing four to five tons of hay, mostly clover, in two cuttings in a season, and from 200 to 300 bushels of merchantable potatoes per acre. We didn t grow little potatoes, didn't pick them up. Of course, we were making money then, and improving the land rapidly. Now, how did this change come about? Land never very fertile in northeastern Ohio; fifty or sixty years of careless work had run down the fertility until it would scarcely produce anything. How did we bring it up? What has made the farming profitable on our place? What we did will help anyone alse to make their land fertile and productive. Well, there were four points: I am not going to talk about anything only this line of increasing the fertility. I believe it is the foundation. What did we do along this lone of increasing the fertility of this land and growing these large crops? First, we happened to sow some clover seed the first spring, and it happened to be on a little field near the barn, and what little manure they had hauled out they put on there. It was a favorable season, and I got a fairly good stand under the circumstances. I noticed three things about this clover. No clover had been sown on the farm before, nothing but timothy. Timothy seed was cheaper. I noticed that I got a little more hay to the acre where we grew the clover.

Second, I saw that the cows gave more milk when eating clover than when they were eating timothy. There was no experiment station on this land; we could not learn any of these things, but I saw it. Later on, when I came to plow that clover sod, I noticed we go an increased crop on the clover sod over what I did on timothy sod. I didn't know why; I had no idea, but that was the fact. I had worked in the office of a business man in Ohio at a salary of $1,000 before I went on the farm with my wife, but we thought we would like to be independent, and we bought the old farm, and run in debt; thought we had a chance, and we worked from early in the morning until late at night. I worked as long as I could see, and helped milk the cows after dark, and about ten o'clock got my supper and went to bed and got up in the morning before I was rested. We didn't have one single dollar after paying our interest and taxes the first year; we didn't spend a single dollar upon ourselves the first year; we could not. I used to meet some of my friends who knew how we were situated, and they asked what we lived on, anyway; and I told them on a little potatoes that we could not sell and on hope; we didn't dare to eat many potatoes, either. That is the way we started. I met my former employer one day after I had worked there a year or so, and he said: "I will give you $1,200 to come back; I want you." It was a terrible temptation, but there was one thing I never could do, and that was to back out. I never ought to have bought the farm; it was a terrible mistake, but there we were, and I had to stick; I didn't want to back out. Now, I got to thinking over this matter I have presented to you, and I said to myself, here is more hay to the acre, increased fertility by growing the clover, and, I said, isn't it possible to manage this matter regularly in rotation and bring up the fertility of this farm? Before this I didn't care how soon I failed, but after that I didn't want to leave the farm. I began to put that matter into practice—began a regular short rotation, dividing up the land that was cultivatable, so as to grow clover once in three years and follow with two money crops, potatoes and wheat, early potatoes and fall wheat, and then sowed again to clover, and so on. Followed this rotation around regularly and I thought in some way, I didn't know how, the clover would get the fertility to grow these crops; and, gradually, with the increase of fertility on the farm, what was the result? For four or five years, of course, not much, but gradually we were gaining, until in six or eight years were were surprised at the income we were getting. In twelve or thirteen years we were getting very large crops, and, I tell you, not of any single year, but on the average. We have grown better crops than any I have named in single seasons. Farmers talked about it all over the country, and came to our farm to see with their own eyes, how a man could take land that wouldn't grow anything and make it grow crops twice as large as they grew in the virgin days of our state. The State Board of Agriculture took the matter up and gave us the first prize—thirteen years after we commenced—for the best and most profitably managed farm in Ohio. We were pretty well satisfied, but to my surprise the increase of fertility and productiveness was faster from this time on than it had been at first, and we soon found, instead of having a gross income as we did of about $300 a year, that we were getting $1,500 to $2,500 and up to $3,000 a year from a little farm that you Western men would think you could jump over, almost. Now, we know today just how this clover works. I didn't know then. I was sitting beside Professor Henry at an institute in Wisconsin eighteen years ago, and I had been telling the farmers how the clover helped me, and I said when I sat down: "Tell me, honestly, what you think of it"; and he said: "As a farmer, I believe you are right, but as a scientific man I would not dare to back your theory." Science has at last found how this matter is, and we know all about it practically. What elements does it take to increase the fertility? Nitrogen, phosphoric acid and potash. The Eastern farmer buys fertilizers to get these ingredients. There is a difference in these elements. If you burn up any of this waste material all the nitrogen goes into the air in the gases and smoke, and the phosphoric acid stays on the earth. When we burn anything we send the elements back where they came from. Now, the air is the great storehouse for nitrogen. About four-fifths of the air we breathe this morning is nitrogen; that is what the farmers in the East pay out twenty cents a pound for. Millions and millions of dollars worth of it in the air above every acre of land. Do you suppose the wise Creator didn't see so much that when the farmer needed some of this vast amount of nitrogen in the air in his soil to make it more fertile, he could not get it in some come cheap, practical way? This is just what the clover will do for us; we know just how it does it now. It is the ability to feed on this free nitrogen in the air and use it for itself and leave it in the soil for growing purposes. I might illustrate it in this simple manner: You men cannot eat grass; at any rate you would not do very well at it, but the steer can eat grass and you eat the steer, so you get the grass. Your corn, wheat, oats and timothy cannot eat any of this nitrogen; they were not built that way; the clover can eat it and you feed that to the corn, etc., and they get the plant food. How about the phosphoric acid and potash? Well, let us see; your wheat, your corn and your timothy feed on the surface while the clover does not; the clover has deep roots and they go down in the subsoil; they don't branch out; perhaps you have not thought what that meant to you. However, there are just as many roots in the clover field as in the grass field, but they are in a different place. The clover goes down five or six feet and maybe more; it takes more pounds of phosphoric acid and potash to grow a ton of clover. Well, where must the clover get the potash and phosphoric acid to grow itself? Down in the subsoil where the corn and wheat and oats cannot go down and get it, the clover can. It does not feed in the topsoil; it feeds down low and pumps up these elements out of the subsoil and, leaving them in the surface soil, the top roots and in the tops of the clover available for your surface feeding crops; so you see the clover not only gets its nitrogen out of the air but pumps up the mineral matter from below; the fertility is constantly reaching down in the soil and the clover can bring it back up where the corn and surface feeding crops can use it. We all have three farms; we are working just one, not making more than one-third what we might. Set the clover plant to work; that it what we do; draw from the fertility of the air, pump up the fertility from below and make it richer, so you can grow two or three times as much as the amount we now produce; just what we have done, and so have thousands of other farmers. Of course, in some parts of this state we meet the objection that they cannot grow clover. I have been pretty nearly all through this state, but I have not been in a single county where I have not found some man successful with clover. How do they do it? It comes in gradually; we know how to do it; there are a few things we must observe; it can be done when a man tries it. He can grow clover, and as he continues to try it, it will do better and better until in six or eight or ten years it will grow successfully. In the southern part of the state they said they could not grow clover, and on the same farms they are now growing just as large crops as we did. I know the men who are doing it.

This is only one way that we increase the fertility of our farms to make it pay better; there are three others that I will speak of briefly this morning. Very soon after I got hold of this clover business I began to study the formation of the soil, the amount of locked-up plant food there was in it and the methods of making this available, more of it in season for the crop. It may surprise some of you, but there are thousands of dollars' worth, at market prices, of plant food in every acre of soil in Minnesota, every acre that farmers till, thousands of dollars' worth at market prices, enough to grow large crops for hundreds of years. You say, if that is the case, why don't we get a large crop every year; simply because nature does not make it available, and wisely, only a small amount a year; if a farmer wants more he must work for it and assist nature; I use a stronger word, the farmer can compel nature to unlock more of this plant food and give him a larger crop. How will you do it? One of the matters I got hold of very soon after I began the regular rotation in clover, and I want to speak of the two factors of our success: Clover and Tillage. There are three or four points that will help you; making the soil ready for the little roots to grow, by increasing the amount on the surface of the particles of soil that they can get hold of. I don't need to dwell on that point because every farmer knows that, but all farmers do not seem to realize the second point. If you will stir the soil deeply and thoroughly with some implement that will mix it all up, you are going to unlock more of that plant food for your crop. Now, to illustrate, you take the ordinary spike-tooth harrow and it does not stir the land much. You put on a two horse cultivator or a spring-tooth harrow and put on horses enough to draw it and go tearing through the land and loosen it up. Why, what good does it do? Any agricultural chemist in the land today will tell you that the chemical process carried on by nature for unlocking the plant food will be increased, will be assisted by this mixing, bringing the new particles of soil in contact with each other. We took thousands of dollars out of our land that was supposed to be worthless by working along that line before there was an agricultural chemist who could tell us how we did it. We told our state chemist what I had done, how we had tried it on strips and got an increase of ten bushels of wheat per acre without any other addition. I asked him to explain, and he said he had not any idea how it came. They have been studying these things of late years; we did it before we knew just how the result was brought about. Another point that has helped us, and I speak of this with some hesitation, the soil, the gradual plowing, putting it half an inch or so deeper each time you break up the sod, say once in three or four years, until you get the soil eight or nine inches deep rather than four or five, you are getting a deeper soil and making more plant food available. Now, on our sandy land this would not perhaps hold good; on land with more or less clay in it you would get more and better, provided it is thoroughly drained, it will hold good and you will decidedly increase the amount of plant food available for a crop, and particularly so in a dry season when we don't have much rain. Next, the cultivation of a growing crop, corn and potatoes, more times than the farmers generally do, helped us. After

I had worked on these other two lines for some years, it occurred to me why don't we carry it still further and unlock more plant food instead of cultivating the corn three or four times; I tried it eight or ten times and then ten or twelve times, and in the dry season I dug deep at first and after that only about two inches and kept to work and kept stirring the ground, and what was the result: Still increased crops. Our specialty has been potatoes; in a wet season, of course, they will cover the ground for six or eight weeks so we cannot get through with a horse. The early potatoes begin to die in July. I tried putting a horse through there and stirred that land up more. Everyone laughed at that, but I was after five bushels more of wheat in the year following and although from our work on that land we grew more potatoes, and instead of the old summer crop we worked all the land and while the crop was in and grew more and after it was taken off we then put in the wheat and we have summer fallowed the land all summer while we were doing the work, so you see it is ahead of the old summer fallowing. Remember the point, that we can compel nature to unlock more of this plant food in the season for us if we follow out these points and know what we are about. It has been arranged so that the farmer would not quite starve to death if he did not work much, but the harder he works the more he can make, and that is particularly true of tillage. Some may say it will cost more than it comes to. If we take a wide sweeping instrument and put on more horses, save the man power and keep them going, put on two or three teams on the land, this is on land that has more or less clay in it—not the sandy land. On sandy land or light land you will not get as much out of it.

Now, another point that helped us about making the farm pay, we have been careful what we sold off the farm. To sell as little plant food as we could and get all the money we could for it. The point is this: If you sell grain or hay off of the farm you are selling a lot of fertility. It is only a question of time when you will run the land down just as our land was. It will gradually go down and down until it will get where it will not pay the farmer. That has been the history of civilization all over this country and all through where we live it is the same story, run the land until it will not produce anything, and then go to work and build it up. How much better to keep it up before it gets to that point. We have a good many creameries in this state. A splendid business for the farmers, making cream. You know, of course, that in selling butter and cream off of the farm you are practically taking nothing off of the land, you will bring some fertility onto the land and you keep that land up and improve that land for fertility, but if you sell grain off you will run them down and you cannot escape it. We had only a small farm and we hadn't any money, and it was necessary, perhaps, not to do what was wisest. We began to sell the potatoes; they are most all water anyway, only about $1 worth of plant food in a ton where we lived one year with another. We buy a good deal of fertility in the shape of bran and linseed meal; we bring it on the farm and we buy a good deal of it from this state. How long can you stand it to sell off the fertility of the land to us eastern farmers to bring up our farms? It is only going to be a few years before you are going to find your farms producing so little it will not pay, and we have some now that are pretty close to that point. The freight on butter is scarcely anything; you get almost as much for butter as we do in

Ohio and New York. How much wiser to feed out these products at home and keep up the fertility on your land. But when you are doing this there is another matter to consider, that is the fourth one and the last in this connection, increasing the fertility and making the farm profitable. That is the saving of the manure. You might as well sell the products off of the farm as to let all of the manure go to waste. That is what most of the farmers all over this country are doing and the majority are losing from one-half to three-fourths of the manure made on the place; that manure is plant food. Years ago we built a cement floor. We had in view the saving of all the crop of manure. It has been a thorough success in every way and for some seventeen years that has been a definite purpose and from that time I have been advocating it through the papers and by word of mouth all over the country; thousands and thousands of these floors have been built and I have yet to learn of a single farmer who is not satisfied if he follows the directions. There has been and always will be a few who made mistakes, but the great mass that built their floors correctly are thoroughly satisfied. I presume you know, I cannot tell you anything now, that the liquid manure that is dropped in the cow stable is worth twice as much per pound to feed your crops as the solid manure; the liquid manure is worth fully three times per pound as much as the solid horse manure to feed the land. That is rather a startling statement. Can we afford to let two-thirds or three-fourths of the feeding value go through the cracks in a plank floor, or soak down into the earthern floor? How long will farmers stand that sort of work? What business on earth is there that will stand such a leak as that except farming? We can go a little further than that, however. We save all the three elements necessary to feed the land, nitrogen, phosphoric acid and potash. Nitrogen makes the leaves grow, that is, the land that is not rich in nitrogen will not grow such crops. Phosphoric acid fills out the grain. I hear in parts of this state about hot, dry weather strengthening the grain. That has been because there is not enough available phosphoric acid; it is more that than it is the hot weather; I have grown thirty or forty bushels per acre, no matter how hot the weather was, while right over the fence there was shrunken grain. Plenty of phosphoric acid will make it rich. Potash stiffens the straw and makes it stand up. Now, practically all, not quite, about five-sixths, of the potash in the excrement from your animals is in the liquid manure and when we let that escape, the manure you have saved on the plank floor is a one-sided ration. It will make trouble just the same as it will if you feed your dairy cow on a one-sided ration. You feed your cow on corn and corn stalks and she will not do well; she needs more protein and the same way with the manure off the plank floor—will not make good crops. In this state it is a question that is vital to-day. I am sure that most of your land is deficient in available potash; it will only be a few years before you will have trouble if you do not feed your land all the elements, the whole manure. Now, you feed your stock properly and the manure that is left should be just about right for your crops. When you let part of it leak down, most all of one element and about one-half of another is gone and what is left is the balance, and that is not what you want. If any of you are interested in the directions for building of this cement floor you will find them in the Annual No. 14. Full directions, depth and thickness and kinds of cement and everything you want to know you will find in there. It will save all the manure, practically; put on plenty of straw; the floor is made rough so it does not slip and it is cheaper than a plank floor; it will last for a long time, at least a hundred years, I don't know but two hundred if you keep a roof over it. I cannot see that ours is worn a particle; it is three inches thick and I don't think it will wear out in a hundred years; use straw on there very freely and let the whole thing go out on the land. How does this work on increasing the fertility? I will assure you you can get from two to three times as many loads of manure. Use straw enough on this floor, and you will have to use a lot; in our little dairy it takes thirty-five to forty tons. Only use straw enough to soak up this liquid and you will get two or three times as many loads out of it. Put ten loads on an acre, or on half an acre of that manure, put ten loads of manure on an acre beside it with the plank floor and watch the crops, you will see this difference that where you put it on over the cement floor with all the elements in it, you will have two or three times as much manure with better manure; you can put it over more acres, it will give you a larger crop, and feed the next winter on the cement floor and save all the fertility, go over still more acres, and in five or six years you will see a tremendous difference with the fertility of the farm. There are thousands of farmers today who have worked this out and have seen wonderful results in five or six years. I get letters by the score from men who have done it and are more than satisfied; who are making money where they used to barely live, because they are making the land richer. Now, very briefly I have given you the four questions, the matters or points that have helped us the most, I think, about increasing the fertility of our farm and putting it in shape so it could be made to pay and pay well. Let me sum it up briefly: The growing of the clover regularly in rotation, say once in four years, getting fertility out of the air and subsoil to make the land more rich for the following crops, and then incidentally work the land more when you are preparing it for a crop, and then being a little careful what you sell off from the farm, sell as little plant food as you can, then feeding out your other crops in such a way as to save all of the manure and put it on the land. That is the substance of what has put thousands and thousands of dollars into our pockets on a little farm that was supposed to be worked out and worthless when we went onto it, and to-day it is able to grow as large crops as can be grown in our latitude. We lived in a little house—we sold it for $10 when we got through with it—for fourteen years while we were paying for the land and bringing it up in fertility, and the buildings we have on our farm with their contents have cost over $10,000, all paid off in this simple way in making the land rich by these methods and getting larger crops, so do you wonder I am enthusiastic on this subject? I have been known as the clover and tillage crank all over this country. I don't object to this at all, because it is the crank that has turned out prosperity for us and it will do it for others in Minnesota in the same way. When I was a little boy there were one or two mottoes that were everlastingly hammered into me. They didn't mean we should ever forget them; one is: "There is no excellence without great labor," and the other, "Work is the engine that draws the car of success." Well, those are pretty good mottoes, sound all right, pretty nearly, don't they? "Work is the engine that draws the car of success." Well, let us see: Suppose we had pictured out on canvas here a locomotive and right behind it a car and over the locomotive we wrote the word "Work," and over the car "Success." Look at it; would the picture be complete with nothing more? No, you want a skilled engineer sitting in the cab with his hand grasping the lever and his eye reaching out ahead, and over his head I would write the word "Thought." "Thought" is the skilled engineer that directs the engine, "Work," which draws the car of "Success" in this world. Now what we want is to put thought and study into our farming to direct our labor and then we can make our farming more successful, make the business pay us better in proportion to the capital invested than any other honorable, legitimate, healthful business on earth. (Applause.)

The Chairman: I believe you are accustomed to being questioned; it occurred to me there are those who would like to ask a number of questions.

A Delegate: In raising clover how do you manage to produce a good crop on poor soil, or can you successfully raise clover the first trying in a poor soil?

Mr. Terry: You will probably have to do as we did; we took all the manure we had and used it as a top dressing on a little land to make the clover grow and we let the rest of the land go, and when we got the clover established on that then we took a little more and so on and gradually worked up until I hardly dare tell you of our success; I made the clover grow on one piece so poor there was nothing on it but mullen stalk, by plowing that land early in the spring and working it six weeks or so, almost constantly, and sowed the clover alone and got it started pretty well without manure. That is where we used the manure. Six or eight loads of good manure will make it grow on any soil.

A Delegate: What kind of soil was it you made that grow on?

Mr. Terry: It was a clay loam; clay enough in it so there was lots of strength there and it was by working it exposed to the air, and we worked it everlastingly.

A Delegate: You cannot do that on sandy land?

Mr. Terry: No, sir, you cannot do very much by tillage without you would have a little top dressing to start; there is another thing that will help gradually the sandy soil and prairie soils where they are deficient in vegetable matter and that is grow something that will grow and turn it under.

A Delegate: I find it will heave with us and the roots will be exposed if they haven't some top covering; sometimes with sturdy plants you will find the roots over the surface of the ground, bare.

A Delegate: Your land is pretty wet?

Mr. Terry: Yes, heavy clay. Where the land shrinks there does not anything heave; where you find the land cracks it does not heave; it shrinks.

A Delegate: Professor Shaw, do you think clover will freeze out if there is plenty of moisture in the ground; not enough to hurt the plant, but enough to hold the vitality, would frost affect it?

Professor Shaw: Yes, I think it will; I think where all the conditions are present for a healthy and vigorous growth that it will stand those adverse conditions much better, but my contention at the present time is that clover will be killed by intensity of frost and that alfalfa will be killed by the same thing.

A Delegate: That is on dry land?

Professor Shaw: On any kind. If the clover is protected by any kind of protection it is greatly in its favor. North of Lake Superior, a good deal further north than Minnesota, clover grows in Canada, but it has a lot of snow over it in the winter season and therefore the cold cannot kill it. I find the worst winter conditions for clover are where it is exposed to the sweep of the cold winds. You may get a stand of clover and it may be fine in the fall, partly protected on the top, but the snow goes off in the winter and there is a sudden drop in the thermometer and one of these cold spells comes and blows over it and it is dead.

A Delegate: I think you are mistaken about the clover being killed in dry weather. My observation, the killing of clover, the root has the water lying on it in March or February. Now, we have springs that we don't have our clover killed and it is simply because the water does not freeze on it in March or February. I have observed that; I have raised clover; I have had clover the last three years, but when it does freeze out, the frost settling upon the plant and the root being covered with ice generally kill it. We can see it the second or third crop.

Professor Shaw: Where do you live?

A Delegate: Blue Earth.

Professor Shaw: You go north 300 miles. When you get north beyond a certain limit, or west, we cannot successfully grow clover now, but we are going to grow it a good deal further north and further west than we can grow it now.

A Delegate: You take at the experiment station, they have grown clover six years in Itasca county; I never saw better clover grow; I don't believe they ever had the experience of winter killing; I think perhaps the sweeping winds killed the clover. This land is largely protected by the woods. For that reason they are able to grow it without having it killed. I don't think they have had an experience of having the clover killed at any time.

A Delegate: I move we adjourn.

Motion seconded.

Motion put and carried.

TUESDAY AFTERNOON.

2 o'clock, Jan. 13, 1903.

Under the auspices of the Minnesota Stock Breeders' Association.

Mr. J. J. Furlong presiding.

Mr. Furlong: This meeting, as you are aware, is essentially in the interests of the live stock breeders of the State of Minnesota. This organization is what you might properly term, perhaps, an auxiliary to the State Agricultural Society; they go hand in hand; they are one, as it were, in a whole. Their objects are about the same. I am pleased to state to the members and others present here that our organization is making a very rapid and successful growth; members joining from every part of the state, and I trust the day is not far distant when every stock breeder in Minnesota will have his name enrolled on our books. I know of no cheaper method of advertising your business as pure stock breeders, and I know of no safer or better way for a man who is looking for stock, than to make use of the reports and books sent out from this department. The expense of a membership is very trifling, only one dollar to join, and one dollar annually thereafter. We have with us on this occasion some parties who will talk to you on the subject of stock breeding and feeding in its different phases, and I trust you will all feel well paid for your attendance. The first on the programme, I see, is an address by Mrs. Virginia C. Meredith, who will now talk to you. You will kindly be as attentive as you can. I have the pleasure of introducing to you Mrs. Virginia C. Meredith.

THE RELATION OF LIVE STOCK FARMING TO THE HOME.

BY VIRGINIA C. MEREDITH.

Mrs. Meredith: It gives me great pleasure to accept the invitation of the committee to speak to you this afternoon upon the relation of live stock farming to the home. I think we will quite agree that advanced farmers clearly recognize that only improved live stock, pure bred live stock, is worthy of their attention, merits dedication of mental energy and material effort. Of course in inexpensive farming we know the foundation stock is not at all eligible to registry, but in expensive farming, successful extensive live stock farming, the sires are pure bred and the aim and tendency is toward practical purity of blood. I take it that the hard common sense of the American farmer will forbid him from keeping live stock, horses, cattle, sheep or swine for mere fancy; the market is the ultimate arbiter of values; and that improved live stock has the position that it has now in our farm economy is due to the fact that it has made the best market, that early maturity and quality determine a profit price, and it seems impossible to secure early maturity and quality aside from the pure breeds; so in whatever I have to say I am speaking of improved live stock, and live stock improved through the use of the pure breeds. The dedication of mental energy, the great effort and devotion which has created the pure breeds of horses, cattle, sheep and swine, in any other profession, would have led to immortality. We know that the sculptor and the painter in his endeavor to simply delineate the thoroughbred horse, has achieved fame; but the poet, more than either the sculptor or the painter, has given us immortal pictures. Now, if we give this credit, this fame, this immortality, to the man who paints or who describes to us in literature and poetry the horse or the ox, what shall we say of the brain that has created the horse, the Shorthorn, the Southdown? To have created the horse with his beautiful pose and his wonderful carriage is a great thing, but for us to maintain what other men have created is a perpetual delineage, and the horse, and the Southdown and the Shornhorn is a creation. Blackmore, in his Lorna Doone, that very beautiful novel, says that nature knew what the demand would be before she placed her best mutton on the South Down hills. That is not in accordance with truth or history. Nature did not place her best mutton in the South Down. The best mutton is the creation of Robert Bakewell, John Ellman and Jonas Webb,—a creation absolutely. Nature did not make the best mutton. Nature never made a thoroughbred horse, never made a Southdown or a Shorthorn. These are men's creations. If this is true, and so much of mental energy and education and enthusiasm has gone to the making of these pure breeds, and if to simply maintain them is a delineage of our own metality, then we shall find upon the farm devoted to live stock the conditions which make it a suitable and a fine place for a home. What are these conditions? In the first place there is this outlet, as I say, for mental energy. It is a great thing. It is a splendid outlet. No other profession calls for such dedication of mental energy and enthusiasm as the problems of the farm. We see, too, that improved live stock is at the very basis of successful farming. Farming cannot be successful unless it is based upon live stock. We know that farms have been abandoned in these United States, many of them. Why have they been abandoned? Not because the farm was a failure, but because the farmer did not rise to his opportunities, and did not understand that live stock insures permanency, profit and progressiveness, and unless farming is permanent and profitable and progressive, it is not worth the attention of a man that has first-class brains, and if it is not worthy the attention of a man with first-class brains, it is not a first-class business, and if it is not a first-class business then it is not the place, not the kind of farm that is worthy to be the home of a family. So with these things fully in view, that live stock farming means the things that I have claimed, that I have referred to, let us see what is the relation to the home of such a farm. I think, in the first place, the associations that come to those on a farm where pure bred live stock is kept, is an important factor in the development of the family. I heard Governor Hoard say a few years ago that wheat farming debauches the heart of the farmer. At any rate it is graphic in indicating what live stock will do for the mentality of the man who will pursue live stock farming. In this association with others engaged in the same business, there comes a broader comprehension of what farming is, a lengthening of the outlook upon the world and all that it means. The markets of the world are associated with the business of the man engaged in live stock farming, so he comes to know the whole world better. He studies what is being done outside of his own locality, how live stock is improved. He associates with others and forms the acquaintance of others outside of his own neighborhood. We find a man that goes abroad to visit another breeder in another state, and there finds perhaps the best type of farm home, convenient, comfortable, the family living in a generous and gracious way, and there comes to his own home through these associations more of the graciousness of living, more of the things that make farm homes delightful, so this matter of association does very much for the farmer's family. And then too the history of live stock breeding; take for example the Shorthorn, which in its history covers a period which takes us back into ancient farm literature, tradition and folk lore. We know that in old Britain there was a tradition at one time that the milk from white cows with red ears had a particular and peculiar value. Whether that was a mere fancy, or had something back of it, who can know? But the early Britain was wise enough to know that he had the germ in the early cattle of what we later called Durhams, a breed that would give him suitable and acceptable food, milk and beef, without the very great effort of the plow and the strenuous farming, and I don't know which we should admire most, the breed or the Briton; it was certainly a fine thing that he should recognize these great possibilities, but the men who have through these long years brought this breed, and many others, to perfection, demand our profoundest admiration; they have removed from the farm the following of the plow and the dull routine, and have founded the dairy and the live stock industry, where grass and meadows have so much to do with the particular product taken to the market. And the literature; one could talk forever about the literature that belongs to live stock. We would not always perhaps agree in saying or in believing that the literature we admire belongs to live stock; we think it is a sort of general nature literature; but have you ever thought how impossible it is for people to understand much of the best literature ever written unless they understand horses and cattle and sheep? You know we have that illustration in the Bible of the sheep and the shepherd, and yet that is Greek to many people,—to those who do not know about sheep. It is a peculiarly fine illustration, because the sheep, you know, of all animals, is the only one who has no instinct of home. We have great stories of dogs and horses, and cats, especially, that will travel across mountains to get home, but sheep seem to have no instinct of home. By habit they may come from the pasture to the barn, but they have no instinct, and so that illustration has a peculiar meaning for one who knows about sheep.

I am going to read to you what is called the finest sonnet written in the nineteenth century, one of the finest of the century, written by the Italian poet, Carducci, and I want to draw your attention to the fact that this can only be understood by those who know cattle. The name of this sonnet is a very plain one, "The Ox." This sonnet possibly has no equal in its power of description and beauty of coloring, says a very competent critic, and this is the sonnet:

I love thee, pious ox.
A gentle feeling of vigor and of peace thou givest my heart.
How solemn, like a monument thou art.
Over wide, fertile fields thy calm gaze stealing;
Unto the yoke with grave contentment kneeling;
To man's quick work thou dost thy strength impart.
He shouts and goads, and, answering thy smart,
Thou turnest on him thy patient eyes appealing.
From thy broad nostrils, black and wet, rises thy breath's soft fumes,
And on the still air swells, like happy hymn, thy lowing mellow
    strain.
In the grave sweetness of thy tranquil eye, the emerald broad
And still reflected dwells all the divine green stillness of the plain.

Who can understand that? One of the finest sonnets written in the nineteenth century; who can understand it but the one who has looked into the "emerald eye,"—the one to whom that "mellow strain is a "happy hymn" because of the association with the early morning and the dusky eve? So I say that the literature that is the best and the finest can only be understood by the one who knows live stock.

One asks the question often, what is home? and where is the best place for a home? Home is a place and an opportunity for the right development of the physical and spiritual natures. Has it ever occurred to you that the thing we need everywhere all over the world, is to get better? The great thing we need is courage. We all know enough, and we think rightly about many things, but we haven't courage to do the right thing. Has it ever occurred to you that the boy and the girl in the country have a greater opportunity for gaining courage than anywhere else? I mean physical courage, and you know all these lessons of life transfer from one plane of life to another so easily. The horse or the colt which the boy rides he learns to control and that spirit of mastery helps the boy all his life. He has conquered the colt. He has the mastery, and when one has felt mastery anywhere, then one has courage that all through life helps one in every duty. Simply the climbing of the tree which every boy and girl in the country has the privilege of doing, or swinging high in the swing that hangs from the limb of the tree,—all these things lead to courage, and the boy and the girl in the country have these opportunities on the farm. And then, too, when one has ever owned stock, one has a sense of responsibility, care and helpfulness, that lead out so naturally from the heart when one has the colt or the calf, and that is a great help through life. And then if one has a sympathetic and intelligent brain, what a high privilege it is to make conditions, to bring about conditions which create animal and plant life, and it is then that one gets into an attitude where they can really appreciate the justice and the life of the divine Creator.

I have been asked to say something this afternoon about how the woman who is to make the home on the live stock farm should be trained. I have indicated how the conditions on those farms are favorable to the best development of family life. Everywhere we are met with this sort of declaration: our best farmers want to move to town; they do not want to stay on the farm. I think there is but one force, but one influence adequate to keep farmers on the farm, and that is the attitude of the woman on the farm. Unless women can sympathize, can intelligently understand what farming means, it is idle to expect that women will be content on the farm. If it is a place of drudgery, of dullness, of monotony, she would be a very dull woman that would want to stay in such a place. It is only by giving her an intelligence of what farming means, or giving her an interest in the farm, that we can expect her to like the farm or want to stay there and make it the home of her children. In the School of Agriculture the girls are given just a little of instruction along the lines of plant life and animal life; just a little work along breeds of live stock and how to judge, how to recognize, how to identify; not with the thought that these girls will become farmers,—which really is a fine thing, and I wish they might all become farmers, but we should not expect they will be. It is given so that they may sympathize with the farmer, understand his business, understand what it is to create life, plant and animal; what it is to improve; what it is to maintain the integrity of the breeds as we have them, and if the girl has this knowledge, if she has this training, she certainly will be more sympathetic with the farm and its interests and its business, and for that reason this little bit of instruction along these lines is given to the girls. We want that this girl should be capable of appreciating the farm, and appreciating its opportunities for her children. Huff, in his report on forestry, says that the oak tree grown in free air is twice as strong as the one grown in the crowded dense woodland, and we know that the boy and girl grown in the freedom of the country, with the opportunities for courage, for persistence, for knowing cause and effect, that that boy or girl will be a more valuable member of society, and if we can persuade women to make homes on the farm, and to enjoy them, we shall have done a great thing for our state, a great thing for our nation.

An old farm house with pasture wide,
  Sweet with flowers on every side.
Amid the city's ceaseless din,
  A man that 'round the world has been,
Is thinking, thinking, all day long,
  "Oh, could I tread once more the field,
Back to the farm house door of old;
  Green meadows could I see;
How happy! how happy! I would be."

Is it worth while to wait until one has been around the world, until one has achieved success in business, to appreciate the meadows and the pastures? No, no; the boy, the girl may appreciate the meadows and the pastures, and the plowed field can never appeal to the imagination again; never be the ideal of the boy and the girl. It is the pastures and the meadows, the colts and the calves, with their responsive affections, more than human; those are the things that most appeal to young people, and it is by having improved live stock and knowing what it means, the great brain that has been dedicated to the perfection of live stock, and then the great brain required to maintain what has been given us; by understanding all these are young men and young women brought to an appreciation of the farm home as the very best place in the world to be reared. So I say to everyone, have improved live stock; then comes the improved home, the better home, the more comfortable home with beautiful lawns and gardens; then come friends and associations, with broad ideas, then periodicals, papers, literature and history, and all these things that make them feel that this is no mean business, and that it is worthy of our best brain and our best endeavor. (Applause.)

The Chair: Secretary Randall wishes to make an announcement at this time.

Secretary Randall: The president wished me to read the names of the committees appointed by him for which provision was made this morning. The Committee on Credentials is as follows: A. T. Stebbens, E. D. Childs, John Kenning, A. H. Bullis, W. M. Curtis. Those having credentials for this meeting will please hand their credentials to any member of this committee, or leave them at the desk, as may be most convenient. The Committee on Resolutions is as follows: J. J. Furlong, E. D. Childs, A. P. Hendrickson, C. W. Gloefelter and Wyman Elliott.

Both of these committees will be expected to report Thursday morning.

The Chair: The next subject we will listen to will be "Sheep Industry," by George McKerrow of Sussex, Wis.

Mr. McKerrow then spoke as follows upon the subject:

SHEEP INDUSTRY.

Mr. McKerrow: Mr. Chairman, Ladies and Gentlemen—After the issuance of this Minnesota State Agricultural Society programme I received letters from three or four of the live stock and agricultural editors in this part of the United States, asking me for a copy of the address that I was to deliver here. Now I am in this predicament,—very much like one of two ministers that I will tell you about. It is said that two young ministers of different denominations received calls to the same town, and began their work about the same time. After working for some time, one of them, who was a very hard worker and a very conscientious young man, concluded he wasn't having the success of his neighboring friend and pastor, and meeting him on the street one day, he said to him, "Brother Jones, how is it? I think I work hard; I spend a great deal of time in the preparation of my sermons; write them out very carefully, and keep the manuscript before me so that I may make no mistakes in speaking to my people, and yet my work is not bearing the fruit of yours. I wish you would give me the secret." His brother minister stopped a moment, and then said, "I think I see it, Brother Smith. You certainly work hard. You prepare most excellent sermons. You keep this manuscript before you, as you say, and Satan looks over your shoulders, sees what you are going to say and goes to your people and hardens their hearts against you, but as I use neither manuscript nor notes, the devil himself don't know what I am going to say." (Laughter and applause.) And I assure you that I don't know what I am going to say here today, and I don't think "the other fellow" does either.

Sheep Industry: thank you, gentlemen, for giving me such a broad topic, and as my good wife is not here to make some sort of a motion to stop my talk, I will have to ask you, Mr. Chairman, just to pull my coat tails when I have talked long enough. In talking to a Minnesota audience like this, whether you are sheep men or not, I know there must be some sheep ladies in the room, because the lady who just talked to you mentioned the Southdown, but whether you are sheep men or not, I rise here to talk today with a good deal of assurance, for I see Professor Shaw here today. Another reason why I talk of the sheep industry with a great deal of assurance both in Minnesota and Wisconsin, is because your state of Minnesota with her neighbor, Wisconsin, has demonstrated their right to stand up before the world and say, "I can produce as good mutton as the world produces." (Applause.) We have demonstrated this at the great American Smithfield at Chicago for the last three years. (Renewed applause.) Your state of Minnesota—to which I have had to take off my hat personally in one or two cases, in the show ring—comes down to Chicago and wins first prize on a grade Southdown lamb, and first on a pen of five lambs in 1901, and then some of us thought when Professor Shaw got a little out of the harness that it wouldn't be repeated, but they come right back again in 1902 and do the same thing. (Applause.) Wisconsin has had a good many of those championships right alongside of Minnesota, and Wisconsin and Minnesota, shoulder to shoulder, have been the only states in the Union that have been able to hold their eminent records down at this American Smithfield. (Applause.) I hardly know where to begin or where to end. I want in this talk today to be as practical as possible, and if possible leave something of value to your people. First, I will say that you may lay it down as a truth, that no farmer is going to be long successful in his business, either in Minnesota or Wisconsin, or anywhere in the best portions of the United States, unless he becomes a live stock farmer. Without live stock it will be impossible for him to keep up the fertility of his acres. Now it remains for him individually—after consulting his wife, of course (laughter), to decide what class of live stock he is going to farm with. It is possible that in this section of country the dairy will pay out as well, if not better, than any other line, but we are not all under those conditions, so beef and butter, hand in hand, may suit some farmers better. Milk and mutton is being made a successful combination by some of our Wisconsin farmers. To illustrate: Some five or six years ago, at one of our farmers' institutes, a gentleman approached me at the hotel during the recess and said to me that he was milking sixty cows. He was aiming to develop his herd until his cattle would consume everything grown upon the farm, as he had come to the conclusion that that was the only right course to pursue in farming, but he says, "I have come up against this obstruction: I have to keep more help on my farm to attend to this thing in the right way than in any other kind of farming, and for that reason I believe I have too many cows, and I must reduce the number of these cows until I can sufficiently cut down the help requirements of the farm. Now, what must I put in the place of the cows I am going to put out? Shall it be swine or sheep? I said, "Of course being something of a sheep crank, I might say sheep, but it is best for you to settle that question for yourself," but I found in the course of the conversation that he was partially pledged to sheep himself. I met this man four years later, and he made this statement: "I have reduced my cows to thirty and added 100 ewes to the place, and when I balanced up my books at the end of the year I found I had made a great deal more money than I had with the sixty cows and with a less bill for labor," and he continued his flock of ewes until he had 200 sheep, and he told me it was a successful venture in his case. I simply mention this as an illustration. I am not here to talk sheep today in opposition to the dairy, or swine breeding, or the horse industry. There is plenty of room in this great state of Minnesota for all these lines, but some one of them, and possibly some two of them, should be followed on every Minnesota farm.

Now, after you have studied this question up one side and down the other as to what class of live stock you will stock your farm with, then let me say to you, stick to that line through thick and thin, up hill and down hill, because every line of business has its ups and its downs, and they follow each other. I said that some people call me a sheep crank, and I will admit that I am, and the reason probably is that the first $2 I ever had to call my own, when a mere boy, was invested in sheep, and from that day to this I have always owned sheep. I have seen these downs in the sheep business; I have seen sheep very low. I have bought the best grade sheep to be had in southern Wisconsin at a dollar to a dollar and a half a head certain seasons. And in every case, inside of two years this same class of sheep has doubled in value, and in some cases trebled and quadrupled. I have bought sheep at a dollar and a dollar and a half a head, and have sold the same sheep back to the same farmers inside of three years at two, three and four times that price. That is also true of the cattle business and of the horse business. The ups and downs of the sheep business come quite close together, not quite as close as in the hog business, for we can unload the sheep onto the market very quickly, and when the good times come every farmer wants sheep and wants to get back into the business. With cattle they are a little further apart as it takes a little longer to unload them and a little longer to load up; again with horses it is still farther apart, and we haven't learned the art of putting the surplus horses into sausage yet. I am not going to tell you whether you should go into the sheep industry or not. I simply say, if you go into it, stay in it through thick and thin, up-hill and down-hill, so that sometime when it does rain porridge you will have your dish right side up and catch some of it. Some of our farmers do just the opposite. When anything is low, they sell it and buy that which is high, to have a good stock of that on hand to sell when it is low (laughter), and so they always have their dish wrong side up when it rains porridge, and they get pretty hungry, but of course they don't do that in Minnesota. (Laughter and applause.)

Fifteen or twenty years ago we talked about wool; we thought we had about settled that question, because wool was very high in price then compared with today, and everybody had the wool idea, but now wool is low, and the profit that comes out of the sheep business comes from the mutton side of the business, and I prophecy it is going to continue so. It costs us on an average more to produce a pound of wool today than it sells for, but we can realize a good profit on the mutton we produce. I am not going to discuss the price of wool and the tariff, because we might get into trouble if I did. In our Wisconsin institutes we have to shut out a few questions; one of them is politics of any kind; another thing is our religious beliefs, and another thing is the great question whether winter wheat turns to chess or not. (Laughter.) Now, if you are going into the sheep business to make money, it must be on the mutton side of the business. You may think I am about to tell you what kind of mutton sheep to put on your farm, but I am not. Mrs. Meredith spoke very nicely about the Southdown, and mentioned no other breed. His record at the recent fat stock shows bears out the lady that he possesses merit; he gets to the front, but I am not going to advise you to take Southdowns, though I am interested in them. Now, it is best for you to study the market demands of the market you are going to supply. If you wish to breed a few Christmas lambs for these cities here, then it might be well to study the horned Dorsett; that does the work generally; but I don't believe the horned Dorsett is the only one that will fill the bill. I once raised the most magnificent Southdowns for the Christmas market, but I say you might consider the claims of the horned Dorsett. If you are going to consider the claims of the Eastern market, several of the large breeds that carry their lambs well might be considered; if you are to meet the requirements of the high class trade with the fancy mutton, then the little Southdown has as great claims to your attention as any. I found it a hard enough job for me to select the young lady that would make a good businesslike partner for me and I found it a good deal harder work to persuade her that I was the right one for her. (Laughter.) And it is a good deal harder to select one for you. Now, if I was to select a breed of sheep or cattle for you, and you were to go into them on my word, you perhaps might not give them very good care and in a short time they would be doing badly for you, and your neighbor Smith would come along and say, "Your cattle are not doing well;

you ought to take the breed I have," and you say, "No, that fellow up there told me to take this breed, but I guess he was a good deal of a humbug; they are not doing well for me;" but study the subject yourself and select your own breed; then you would say to your neighbor, "The breed is all right, but I am not feeding just right; I will change my method of feeding." And so I say it is better for you to select for yourself. I might say to you, go in and start a pure bred herd or a pure bred stock, but to the average farmer we could say that. I should say, take the best grades of scrubs you can get, and then by the use of a pure bred sire, breed up. That is the safest course for the average man to take. If you have had experience and made a success with your grades, then you can start in with the pure breeds in a moderate way to begin with. But remember this in the selection of this pure bred sire that you use: you must take a great deal of care and exercise a great deal of judgment. It is a common adage among breeders of pure bred animals, that the sire is half the herd or flock. That is true where both sides are equally well bred and both will have equal influence upon the offspring, but where one side is grade or scrub, without any breeding whatever, and you are to get all the breeding improvement through the sire, then I am here to say that that saying is not true. Where you start with a scrub on one side and a pure bred sire on the other, then you may safely say that the sire is the whole flock, and you should use as much care as the man who selects for the blood through the sire, but you don't need to pay the price of the man who selects a choice, fashionably bred sire that is to head his pure bred herd; because if you get an animal well bred in the right lines, but happens to be a little out of date in the color of its face, in the mould of its hair, if a great deal of stress has not been put upon the hair in your breed, or in the exact condition of his fleece from head to thigh, if your animal, as I have already said, is pure bred and then shows good constitutional development, a good mutton development, you can buy him if he is a little off in fashion. That is a lady's hat that is a little out of fashion in the city might do in the country. (Laughter.) Now I have paid $500 for a sire in sheep just because it was all right everywhere; all right in his build; all right in his constitutional development; all right in his fashionable points, but it would not pay the farmer with fifty scrub ewes to pay $500 for that sire, because they wouldn't get it back in $5 and $10 and $50 bills as I would get it back, but it would pay to buy a sire that is well bred, that is full of vigor, with a good constitution, if the shade of its face was a little off or something else that was fashionable was a little off, and they can buy them at $35 to $50, but it will pay him better to pay $50 for a good one than to pay $10, $15 or $25 for an ordinary one. When you have bought a good sire, then continue right down with it. I am a firm believer in good blood in every line, and I am also a believer in feeding and proper care; better feeding and care should go along with good breeding in raising up this grade herd or flock. Let me say a word, though, about this sire. I want him in his general conformation to be a mutton sheep. By this I mean wide over the shoulders; wide over the ribs; wide at the loin, because there is where you find the high priced meat and the width well carried out to the tail, well filled out on the inside of the leg and on the outside; the leg of mutton is the highest priced portion of the sheep's carcass. Along the top lines that I have asked for to be wide comes the highest cuts, eight and ten cents a pound at wholesale, while the lower cuts lack the price; the lower lines of the ribs and the flank sell at two, two and a half and three cents a pound at wholesale, so it makes a great difference whether your sheep puts his mutton on the top line or the lower line; and sheep with a flat rib, drooping down, and a narrow loin that goes with the flat rib, and the narrow leg, puts too much of his food in those lower lines that are cheap. Then we want the animal of a good, vigorous constitution, well developed in the chest so that there is plenty of room for the vital organs, a large, light, bold eye, large nostrils to let plenty of good oxygen into those lungs inside of that large chest, a good, bright, pink skin. Now I am always looking at the skin and the outside covering of every animal that I buy. When you select an animal with good hair and a soft, pliable skin, you always get a good feeder. The outside covering of the animal is a good indication of the inside. When you find the outside covering healthy, lively, silky to the touch, then you can make up your mind that the inside development is healthy. I care not whether it be of the extremely coarse, well, or medium well bred, I want it silky and lustrous. This sire should be well cared for; what I mean by well cared for, is not over fed, not under fed. I meet farmers who say, "I have been out and bought a pure bred sire, and I have heard these pure breeds keep easier than the scrubs. I am going to turn them out in the big pasture, and if it cannot be kept easier than my scrubs, I know it is all humbug;" and I will give you a receipt right here to make the poorest kind of a scrub out of the best pure bred that lives, and that receipt is simply "starve them enough." Why, that well sprung rib you see, that broad appearance, is by keeping them well fed. You can develop them by careful keeping and good feeding, but when you take away the care and the feed you go back to scrub conditions. The scrub raiser and the scrub sheep always go about hand in hand. If I find scrub animals in the yard I generally find them in the house. Now if you are going to stick to the scrubs, don't go into pure breeds, stay with the scrubs, and they will always stay with you. Don't starve the sire; don't over feed him. In this northern latitude a very critical time is when they are changing from the succulent green feeds of the field to the dry feeds of winter. They can run on the pasture and fill their stomachs, and we say they are doing well; then there comes a fall of an inch or two of snow, but still you say, "They are doing well; they don't need any more feed yet;" but we make a mistake, we ought to be giving them a little feed of grain, or good, well cured clover hay, or good, well cured alfalfa, but a little grain is about the right thing at that particular time. They will get a good deal of their living out in the field, and it is all right to get it there, but they must have something to supplement it, because it has lost its digestibility and something of its nutrition by freezing and thawing. In the spring is another critical time, when they are changing from grain to grass. In the spring we put them out on the grass, and they turn up their noses at the dry hay and grain after eating this succulent grass; but we want to continue feeding hay and grain until we bridge over the time when the grass is full of water and lacks the nutrition, until the grass gets good and rich, and we find sometimes that the sheep's digestion has been injured at that particular period; or some of your ewes that are raising lambs, when they get onto this slushy grass, they go down, but there is a reason for all these things, and we should study and look for these reasons. All through the winter season we should watch our flock carefully. There are a few things we should pin up on the sheep shed door; one of them is, "sufficient variety of food;" another is, "sufficient laxative food to keep the system in a loosened, healthful condition," and "exercise for the breeding flock." I am not an advocate of feeding corn for breeding ewes, but if you are feeding heavy food to any extent, then I say, be sure your flock is getting lots of exercise. I have a neighbor who a few winters ago had some corn left in the field some distance from the house; in some ways he was careless, and he left his flock to run at large during the winter; they found these shocks of corn, and they got pretty fat on the corn, but they traveled that half a mile sometimes twice a day; he had some nice spring lambs, and the mothers had a fairly good supply of milk. When the lambs were born, he says, "My ewes were fatted on corn this winter; I have lots of spring lambs, and some of them were born when it was five and ten below zero and they jumped right up and helped themselves; this danger from feeding corn is all a humbug." But he overlooked the fact of the benefit that the sheep derived from the exercise.

Now when the lambs are being born is another critical time in the life of the flock, and we should be on the watch. It will pay then to go to bed a little late—as a rule that don't pay; it will pay to get up early in the morning, sometimes in the middle of the night, to see what is going on in the sheep pen. Every lamb you lose means so much going out of the profits; every lamb you save is that much added to the profits. Sometimes under the best of circumstances you will have a lamb chilled, but don't leave him if his eyes are closed and he seems to be taking his last breath. Get him up and put him into a tub of warm water, and make the water warmer, until you can barely hold your hand in it, and then he will begin to kick; then take him out and dry him, and get him to his mother, and he will come out all right. It was about twenty-five years ago when I learned that method. I used to warm the lambs by dry heat, put him into the oven and roll him up in blankets, and I saved a good many that way, but it resulted in a good deal of clash; my wife argued with me one day that it was better to give them a warm water bath, but I wasn't going to give up to a woman that way. But one day there was a lamb chilled and nearly dead. I was going to leave him to die, but I said, "If that lamb grows up he will bring me $20," and I said, "I will try." I grabbed him up and hastened to the house. When I got to the house, I says, "Hurry up; open the oven, I am going to put this lamb in." "Why," she says, "I'm baking biscuits, and we cannot bake lamb and biscuits at the same time;" and she says, "Wouldn't warm water do as well?" I says, "Well, get warm water; we will try it." Well, we put him in a tub of warm water, and the lamb come to all right, and we took him to his mother, and when he was eight months old I sold him for $50. Well, down here in an adjoining state I told this story, and a lady said, "Did you give your wife that $50?" I had to say no, I did not (laughter), but I am doing something that is a good deal harder than giving the $50—admitting that my wife gave me some good advice.

Now, you shouldn't allow the mother to run idle after she has lost a lamb, but hunt up some twin lamb, or triplet; take this mother and her dead lamb into one corner of your shed and there make a pen around them. We always keep some little pens on hand; we make a gate four feet long and three feet high; put two of those gates together, and with strap hinges fasten them together; when not in use, pile them up in the shed; we take a pair of these gates, open them up half way, and then you have a pen four feet square. Sometimes we have a row of pens all around the sheep barn in that way.

A Member: How do you attach those to the walls?

Mr. McKerrow: Well, as a rule they don't need fastening, but we have some little hooks on them, and drive a staple in the wall at the same place, and we build these gates so that the upright pieces run down two inches lower than the cross bars, so that you can let the uprights extend down into the manure. Take this ewe and her dead lamb into one of these pens; hunt up the living lamb that you wish fostered; tie one hind leg to the two front ones, leaving one hind leg free; take that lamb in to this mother, and rub them well together; he will kick with his free leg, and the mother will think her dead lamb is coming to life, and she will lick the living lamb and smell of it, and then you can sneak away the dead one. When she owns it well, see that it owns her; untie the feet and see that it gets nourishment. Don't turn her and the foster lamb right out where its own mother is, because the other ewe will own him, his stepmother will own him, and pretty soon you will see his twin brother going down hill and he will get to be a corking fellow. Keep him away three or four days from the other mother, if possible. Once in a while, however, you will find a lamb a week dead. Then, I say, skin the dead lamb and use his skin as an overcoat for the living lamb. If you have done that well, three times out of four she smells the skin of her own lamb and owns the living lamb. If she smells down to the hoofs and down to the end of his nose, she will probably bunt him over and look up to you as if to say, "You are pretty smart, but you can't come that on me." Then take some of her milk and rub his nose and nostrils with it; then bring in the shepherd dog and let him perform a little in front of him, and while he is playing there her motherly instincts will be aroused, there is a smell of similarity between this and her lamb, and in nine cases out of ten she will own him. But if she doesn't, put her in prison, put her in a shipping crate and put this lamb in the crate with her; it will get nourishment there, and three ewes out of four will give up in about forty-four hours, they are beat, but once in a while they won't, and they will stick to it a good while, but it pays to stick to it, and your ewes will be better next year and your twin lambs will be better.

Then there is another critical time—the shearing time. Then cull out the poorest ewes. You ought to put a mark on her in shearing time, and if you will mark her as soon as she is sheared, you will know her later on when she looks fat and sleek. Another thing we should do is to dip our lambs to kill the ticks. If you dip your lambs from five to ten days after the ewes are sheared you can kill the fleas. Refuse tobacco dip is a good dip. The only difficulty is to tell when it is just strong enough, just strong enough to kill the fleas or nits, and not strong enough to injure the lamb, but you can buy patent dips at a very low cost—from one to three cents per head for dipping your lambs. Then you have a sure dip and no trouble. I borrowed my wife's wash tub one year to dip the sheep in, and when I was through with it I washed it out clean, but the second year I forgot to wash it out when I was through with it. She wanted to know where it was the next morning, and I said, "Why, I forgot to wash it out; I will get it and wash it out," but she said, "No, I can wash it out quicker than you can," and she washed it out;

so the next year I made a trough to dip the sheep in; I didn't have cheek enough to take the wash tub again. Of course we use a large galvanized tank now, and we run the sheep all through the tank, dip them all soon after shearing, wait a little longer than we used to using the small tub; but if you have a small flock, you can take the dip in a small dish, crowd your sheep all up in one corner of the yard in a solid body, then carrying the dip in any old pail, with a wisp of hay you can sprinkle them. When they feel this dip falling on their heads and backs they will try to get away, but by using the movable gates you can keep them confined so they cannot get away. We dip the lambs five to ten days after they are sheared, and sprinkling the dip on in this way kills the small lice on the backs of the sheep that get into the wool and trouble the sheep in the winter time. The dip cleanses their skin and there is no more trouble.

My wife says before I went out to talk at the farmers' institutes she got a chance to talk half the time, but now she says, "Since you have practiced up so much on the farmers, I can't get a word in edgeways, and I would advise you sometimes to let them talk back." So I think perhaps it might be well, Mr. Chairman, to let them talk back this afternoon.

The Chair: Go right along. They will have time enough to talk back after we have had an hour or two more of it. (Laughter and applause.)

I have already spoken about feeding in movable racks. Now, as a rule, all of your feeding should be in troughs or racks, if you haven't any fields for your sheep to exercise in; if you haven't a corn field that they can run to, then I would say put some corn fodder out in the pasture with some corn in it; spread that out on the snow, and they will keep the snow packed down, and you can spread out some fodder every day, and they will get lots of exercise in feeding that way. But otherwise, I would feed in racks. A rack for rough feed, for corn fodder and straw,—the rack I like very well is a slatted rack. Take a board a foot wide and sixteen feet long; another six inches wide and sixteen feet long; lay them down on the ground eighteen inches apart; that will be the height of your rack. One foot, a foot and a half and another half foot, will make three feet high when that rack is up; then saw strips of six-inch boards three feet long to nail on up and down. Nail them eight inches apart for average sized sheep; if you have large sheep, nine inches apart; for small sheep, seven inches apart, but about eight inches on an average. Nail them on with nails that you can clinch. Nail them on, clinch the nails, and then turn the rack up. There is eight inches of space for the sheep to put his head through. Your sheep are not always of the same size and strength, and you ought to sort your flocks so as to have the bunches of the same size and strength kept together, because they will lord it over each other like people, but with this kind of a rack they don't have that advantage; each one has his place; if one backs out and goes to another place, that space is open for another sheep. I use scantling in the corners to nail to. Nail the sides, if your sheep are good sized sheep, I would say about two feet to two and one-half feet apart; if your sheep are rather small, bring them a little inside of the two feet, so that your sheep from each side can reach a little over the middle. I have used a rack with bottoms, but, as a rule, we don't put any bottoms in. The feed falls a little below the feeding line. If you have hired help, they will quite often allow this rack to fill up with the refuse—with corn stalks and with poor hay—until they are feeding the sheep clear up to the top; then the sheep has to run his head clear in and get dust in his eyes. You should always clean out these racks so they can put their heads in above the feed and not have to pick it out from the corn stalks, straw or coarse hay.

Now, in feeding grain, I like a flat bottom trough. I build it of eight-inch plank, two inches thick and twelve or fourteen feet long, making the trough two feet wide; I take a good twelve-inch stock board, running it right along in the center so that there will be five inches of the board above the plank one way and five inches the other. I am making a double trough; tip it over one way and you have a trough of five inches depth, tip it over the other way and you have a trough of the same depth; leave the side boards projecting out beyond the ends of the bottom, or center, plank, so that when the ends are nailed on they will be flush with the sides. We make the trough of a height according to the class of sheep we are feeding, I will say on an average eighteen to twenty inches; we spike a piece of plank across the ends to give it this height, and then we nail a strip of board across the bottom of these end pieces so that it has more bearing to stand on. If it was only eight inches wide they would easily tip it over. Nail on a four or six-inch strip of board about twenty inches long,—that gives it bearing to stand on. We nail on two boards of this kind at either end. I feed my sheep on one side of that trough today, and perhaps tomorrow on the other side. The reason I use a flat bottom trough instead of a V bottom is that they feed slower and more deliberately eating from a flat bottom. I don't think a sheep's time is worth anything only when he utilizes it for growing. Now, if there comes a storm during the night, and the upper trough gets wet, I just tip it over and have a dry side on the other side, and in that way I always have a clean, dry trough to feed in—a flat bottom upon which they feed slower, and a dry surface to feed on all the time.

Now, I have had some round racks, that for inside racks I like very much, but they are rather hard to build and a little expensive, but a round rack has its advantages. Your sheep standing around in a circle can get their heads in a great deal smaller space than their bodies. Now, this round rack is built in this way. We first build a platform for the bottom of two-inch plank; we put in eight-inch sills, running them crossways and spiking the planks to them. Then we build a cone up in the center, putting a piece of wood up, and by beveling the edges of the boards we can build a cone out to within a foot of the outside of the platform. The platform is eight feet across, that is, we build most of them that way; some only six. Build this cone up to a reasonable height, say about three feet; then we use rounds like a fork handle; if you have a nice straight lot of poles you can use poles. We bore a series of holes around this cone, close to the base of the cone, three inches apart, just so a sheep can get his nose through, and another series of holes near the outside of the platform about eight inches apart; into these holes we insert the poles; next to the cone the holes are three inches apart all the way around, then on the outside, within two inches of the outside of the platform another series of holes ten inches apart,—or rather we put ours eight inches apart, leaving a space of about ten inches for feed trough between first and second rows of rounds. The sheep can put its head in that eight inches and their bodies diverge, and the sheep has plenty of room back.

Strips one-half inch by four inches should be nailed around at bottom of outside row of rounds to keep grain and fine hay from coming out. The rounds should be three feet long and held at top by plank circle fourteen inches wide and six feet in diameter from outside to outside. I think you can feed about twenty sheep at one of those racks. They are savers of room and no corners to run against. And that is another thing you want to look out for, not to have any corners or narrow doors for them to run through. Another thing is to salt them. Variety of food is another thing. We all like variety, and our sheep like variety, and in fact I never knew a successful feeder that didn't feed a pretty good variety. The best coarse feeds we can find in southern Wisconsin, in the order that I consider their value, are alfalfa, mixed alsike and red clover, and then a general mixture of alsike, red clover and timothy, coming down to corn fodder and straw. Grains come in the order of oats, peas, wheat, corn, but of course I wouldn't feed peas, wheat or corn alone under any conditions. I should want something of a more wild nature, or a more protein nature, a more grassy nature, so we feed some of these coarse foods, or oats or bran, or something of a lighter nature.

Question: Have you ever tried spelts?

Mr. McKerrow: No, I haven't tried spelts. I have seen them grown in different parts of Wisconsin, but have concluded that unless I saw more value in them than I have seen so far I would feed something else.

Another Member: Have *you* tried spelts?

First Member: I have tried them this winter some.

Second Member: How do you like them?

First Member. Why, it seems to do pretty well.

Question: Would you like white beans as a feed?

Mr. McKerrow: Yes; we have fed a great many beans to sheep, but the sheep get the farm so rich that we cannot raise any more beans.

Question: Did you ever use oats extensively—sheaf oats?

Mr. McKerrow: Years ago we did, but now, since we are using a good deal of ensilage, we are not feeding sheaf oats; we feed thrashed oats now as a rule. Sheaf oats were very good, but we found corn ensilage better.

Question: What is the remedy for grubs in the head?

Mr. McKerrow: Plenty of grub in the stomach. (Laughter.) The reason I made that remark, your question reminded me of a little incident in our neighborhood a number of years ago. There was a Scotch drover in that part of the country who hadn't been in the country very long. He had been in the sheep business in the old country. He also had a brother with him who had very recently come over from the old country, and the young ladies called him very green. I had a neighbor who lost a good many sheep every year along through the spring from grub in the head. About that time I was feeding a flock of wethers for the Milwaukee market; that was before Armour and Swift started their business. (Laughter.) I used to haul these loads of wethers in on sleds. I had contracts with the leading butchers of Wisconsin. One winter I thought in killing these wethers I would cut the heads open and find if they had any grubs in their heads. I was surprised to find so many grubs in their nostrils. We kept parts of those flocks along and sheared them, and sold them later, but we lost none from grub in the head, and I presume those we didn't kill had as many grubs as those we did kill. Just after this experience of mine, my neighbor sold his flock of sheep to these Scotch drovers, and when this greenhorn got there there were three or four dead sheep in the yard, and he said: "What, mon! are the sheep de'en?" and the man says: "Yes, I told your brother all about it, and the bargain was that we would only count the sheep that got up and walked out into the road." And he, Scotchman-like, says: "So you think your sheep are de'en of grub in the head, do you?" "Yes," the man says, "I have opened their heads and found them." "Well, sir," the Scotchman says, "I don't think it is grub in the head at all that is killing them." "Well," he says, "what is it?" "Well, I am thinking it is only lack of grub in the stomach."

Well, in the first place, that grub is made from the gad fly that lays its eggs in the summer. These eggs are drawn up into the sheep's nostrils, and the grub finally finds its way into the stomach. My idea is that the larva don't get into the sheep's stomach unless the sheep is in a relaxed condition. For years we tried to prevent the grubs getting into the sheep's head by having the sheep's noses well daubed with tar. Well, that was a good deal of a job, and I tried to find some easier way, so I took some planed pieces of timber, bored inch and three-quarter holes in them and then beveled the edges of the holes with a sharp knife. I used to salt my sheep in these holes and every time I salted them there I put the tar down around on the sides of these holes, so that they got more or less tar on their noses every time they took the salt. If you have losses from grub I guess the only sure way is to puncture the nostrils and destroy the grubs. I have heard it said that if you could only get them to sneeze enough they would have no trouble with grubs, so I don't know but what Scotch snuff would do it.

A Member: Mr. McKerrow, I heard a gentleman give a cure for grub in a Minnesota institute that cured two sheep for me. I don't know that they had grub in the head, but from the symptoms I thought it was. He said: "Steep tobacco real strong, and take a syringe and squirt it into their nostrils." Well, the first sheep I put it into his nostrils and shoved him outside; then I took the other sheep and put it into his nostrils, and when I shoved it outside I found the first sheep was dead, and when I turned around to look at the last one I had brought out I found that it was dead.

Another Member: Take a turnip or a beet and smash it on their head; I have heard that would do it.

Another Member: Let them eat it, it would be better.

Question: Those troughs; I didn't understand how they were fastened.

Mr. McKerrow: Well, we will take these three pieces (illustrating); here is the end and it is eighteen or twenty inches across here; that would be nine inches from the ground, or ten, as the case may be, up to the center of the trough. I nail a strip right across the end of this plank—two of them. They extend out further you see, as far on one side as the other; we will put two of them at this end and the same kind of strips up there, so you tip your trough half way over and it is standing on legs. After they have fed and the grain is all eaten out of the trough, if you turn it over half way, you will have it dry on both sides, but quite often they will leave it open and it rains in the night and it is all nasty the next morning, but if they tip it half way over the chances are both sides would be dry and clean, too.

Question: Is it a fact, or is it not a fact, that bells put on sheep is a precaution against sheep dogs? My experience is we lose ten times as many sheep from wolves and dogs as we do from grubs.

Mr. McKerrow: I believe that bells are good. I believe also that if a dog gets after sheep they will catch them even with the bells on. I am told where they have had trouble with wolves in the west of us, that it is very seldom a wolf troubles a flock that is well belled. Now, we never lost any sheep from dogs up to three years ago, and I had thought that our flock was about dog proof. I had two reasons for that, and one was because in our pasture we always had colts; those colts will get along very well in the sheep pasture, and whenever strange dogs would come into the pasture these colts would run them out. Then, we keep a good shepherd dog, and he is always working among the sheep; the sheep are well acquainted with him, and our sheep, when they see a strange dog come in in the daytime, if they are lying resting or feeding along, they will raise their heads up and gather toward him instead of running away. Some sheep will turn and run and the dogs will chase the sheep and catch them. We had some Oxford sheep a little distance from the house, and some dogs got in among them and did some seven or eight hundred dollars worth of damage in a short time. There were no colts there and no bells on them, and they did their work, and since that time my boy has been practicing with a Winchester rifle.

Question: Have you any laws in your state as against dogs for the protection of the owners of sheep?

Mr. McKerrow: No, I am sorry to say, we have not. I believe the owners of the dogs have more influence with the legislators than the owners of the sheep. They get up a game law every winter, but when you get up a dog law they fight it and manage to down it.

Question: In very cold weather how do you furnish your sheep with water?

Mr. McKerrow: Well, the watering of sheep, I think, is a very important item. They shouldn't be allowed to eat snow, or to drink ice cold water. We water our sheep in the middle of the day when it is warmest, and we warm the water to above the freezing line a good deal, to about the normal temperature of spring water.

Question: Water fresh out of the well is all right?

Mr. McKerrow: Water fresh out of the well is all right. We force our water up into a big tank and then it is right handy where we can warm it up.

Question: You think sheep should get water once a day.

Mr. McKerrow: I do, yes, sir. You might as well expect your dairy cows to produce good milk, some seventy or eighty per cent of water, as to expect your breeding ewes to raise lambs who are drinking milk, on grass alone.

Question: When do they need water most, in the summer or winter season?

Mr. McKerrow: Well, they need it most in a dry summer, and then in the winter when they are eating dry feed, but when the grass is fresh and growing well, and juicy, they don't need so much water.

Question: Mr. McKerrow, speaking of the red clover, etc., you mentioned alfalfa as the best. I wish you would tell us particularly of your experience in growing alfalfa.

Mr. McKerrow: Well, I think it was some twenty years ago I tried to raise alfalfa, and I worked along two or three years and it wouldn't grow for me. The seed was very high in those days, and I wasted a lot of money. I saw Professor Henry; he tried the experiment at Madison, and he failed, and I dropped it as a failure. A little later I was over in Canada looking up sheep in that country, and I visited one of the Southdown breeders, and I found he had the best grown ewe sheep in Canada. I wondered why, and I noticed he was feeding alfalfa hay in the summer time, even when he was feeding grass, and I inquired about it. The soil there is about the same as in southern Wisconsin, heavy clay, and he told me he was growing it, and he thought fairly successful. I went up to the agricultural station at Guelph, and it seemed to grow remarkably well there. Now, we Yankees don't like to be outdone by anybody else, so I tried it again; I bought some alfalfa seed, but I inquired particularly of this Canadian, and he said: "The first summer we have to be very careful, and if it turns yellow the first summer we run the mower over it and cut it down," and I went home and sowed a little. I cut it back the first summer, and behold, it grew, but I was so fearful that it wouldn't grow that I only used five or six pounds of seed to the acre, but the clover that I planted with it finally died out and left the alfalfa. We plowed the same patch up this fall, and the roots of that alfalfa were many of them as big as my wrist and they bothered the man that plowed it.

Question: What kind of soil was that raised on?

Mr. McKerrow: Clay, with a clay subsoil. Not an ideal soil, I don't think, for alfalfa.

Question: Clay subsoil?

Mr. McKerrow: Yes, sir.

Question: How deep was the clay subsoil?

Mr. McKerrow: Well, it goes down a good ways. It had to live in that clay subsoil. It doesn't make the growth the first year. We have some fields that run down into something of an oak opening, rather prairie loam-like, broken up, with gravel mixed in it. Now, I found our alfalfa down on that kind of ground makes a quicker start down there on the lower ground, but when three or four years old that on the higher ground seems to do fully as well.

Question: Will alfalfa grow on a flat soil, two or three feet deep?

Mr. McKerrow: I cannot say, because I have never tried it, but Governor Hoard at Fort Atkinson had very good success on the black loam.

Colonel Liggett: I had a letter from him a few days ago and he claimed he had grown 118 tons on thirteen acres.

A Member: Where was that, colonel?

Colonel Liggett: Jefferson county, Wisconsin.

Question: There are several varieties of alfalfa. Which would you recommend?

Mr. McKerrow: As far as I know I have only tried one variety, and that is the common alfalfa, buying the seed at about $6.25 per 100 pounds. I had a strong notion of trying the Turkestan, but in talking with a gentleman in the Agricultural Department down at Washington, he said: "Unless you are satisfied that it is Turkestan seed I wouldn't advise you to purchase any." He said that some of them there knew where most of the Turkestan seed was grown, and they couldn't get any, but some men seemed to get all they wanted. I sow twenty pounds of alfalfa to the acre when I sow it alone; where I sow the clover with it I only sow about six pounds of the seed. I noticed that where it was thin on the ground the root grew very strong, and where I sowed thirty pounds to the acre the roots remained small. I think on a clay land we want to get a big root, and I think twenty pounds is enough for me. For instance, if you have good seed and a good soil twenty pounds would make you a pretty good stand.

Question: The reason you have to cut it back is on account of the drouth; that is to say, the ground is so filled with the roots that it exhausts the moisture in the soil and it does not supply the growth above ground in dry weather, and if the tops are not cut off they will exhaust the roots and kill the plant.

Mr. McKerrow: Yes, that is a good reason. One season I noticed the leaves were turning yellow, and I cut it, and I had enough to make a good crop of hay.

Question: Isn't that on account of blight?

Mr. McKerrow: Well, I haven't seen anything along that line. It looks like a blight. The particular reason, it seems to develop root a good deal better where you cut it back. Where it died on me I dug up the roots and found them a good deal smaller than they are now where we cut the tops back.

Question: Do you sow the alfalfa alone?

Mr. McKerrow: Well, the best results I have had is by sowing some of this beardless barley, sowing as early as the ground will work well, about a bushel and a half of the beardless barley to the acre. Now, our beardless barley ripens about a week or ten days earlier than the bearded barley, but we don't allow it to ripen; we cut it in the milk stage and make hay of it, and then as a rule the alfalfa will be as high as the barley stubble. Then after the barley is cut the alfalfa begins to spread out, and we have to cut the alfalfa back afterward.

Question: Will there be a crop again that fall?

Mr. McKerrow: One year we cut a second crop, when it was very wet, but as a rule you will not get a second crop of alfalfa. This crop we cut along, I think it was late in August, or the middle of August. That was as good a piece of alfalfa as we ever had.

Question: Beardless barley and alfalfa makes a good milk hay?

Mr. McKerrow: Yes, makes a good hay for cows and also for ewes.

Question: How do you prepare your soil?

Mr. McKerrow: A good, rich soil, we like fall plowing, and then harrow it down in the spring—put on a good harrow or a disc pulverizer.

Question: How many crops of hay do you get after the first season?

Mr. McKerrow: From three to four. We don't usually get any more than three crops. We cut three crops of hay this year, and anticipated cutting the fourth crop this year, but we let our show sheep run out on the alfalfa; we were preparing the sheep to compete with the Minnesota sheep in the show at Chicago. (Laughter.)

Question: Do you ever have any trouble from bloating from feeding alfalfa?

Mr. McKerrow: When you come to pasture it there is a great deal of danger of bloat. It is not fit, I think, to pasture any class of stock on unless it is hogs. It is all right for hogs, because they will not eat enough to bloat them. Cut it when about one-tenth of the blossoms, we will say, are out. Allow it to wilt. Sometimes we put it up the same afternoon if it is a very drying day. Cock it up in rather small cocks. It is a little closer grown than clover, and it is pretty thick, although we sow only twenty pounds to the acre ours has been very thick on the ground. Allow it to stand two or three days and then spread it out and take it in.

Question: You spread it out again?

Mr. McKerrow: Yes, we air it out. We allow it to sweat in the cock; you understand all of these plants throw off the moisture through their leaves. If you cut alfalfa or clover, don't allow it to dry until the pores of the leaves are all closed, but cock it up when it is only partially wilted, and then the leaves still have the ability to throw out the moisture or sweat, and then you can air it out about the third day to let the moisture pass off in the atmosphere, and then you can take it in.

Question: Will it grow well in sandy soil?

Mr. McKerrow: Well, they are growing it well on sandy soil in the Platte Valley. On that sandy soil it is about twenty feet down to water, and they tell me the roots followed the soil clear down to the water. This is not my lie, if it is a lie. (Laughter.) They got to talking alfalfa a little at the institute up at Guelph, and one of them said they had dug down and found an alfalfa root fifty-three feet down, and he was an experiment station man.

Question: How long will an alfalfa root live?

Mr. McKerrow: You shouldn't sow alfalfa unless you expect to keep it fully eight or ten years, but if you plow up one field, as my man did, you won't want to plow it oftener than once in ten years. But then it is practically in the land, the amount of nutriment in the ground it grows upon.

Question: What is the yield of this alfalfa hay?

Mr. McKerrow: On an average we cut about a ton and a half to the acre on each cutting. I have seen very large fields of alfalfa growing on sandy and gravelly soil in California.

Question: Yes, and probably seen some that was pretty old?

Mr. McKerrow: Yes, sir, I have seen thousands of acres.

Question: Wasn't that where they irrigated?

Mr. McKerrow: Oh, yes, they irrigate. I have seen alfalfa growing in the gravel on the roadside only twenty-five miles south of here.

A Member: I understood him to say that the alfalfa root went down fifty-three feet, didn't you?

Mr. McKerrow: I didn't say that; that was the experiment station man.

Member: Well, I was not going to criticise the gentleman. I knew of a hubbard squash that went two miles and a half for water, and the man had to go clear down to Lake St. Croix to find the end of the root.

Mr. McKerrow: Well, Wisconsin will most always go anybody one better.

Question: What advantage has the alfalfa over red and alsike clover?

Mr. McKerrow: Well, in the first place, if you get it well set as a grower it stays with you longer; in the second place, as a food it contains more protein; you get more as a rule to the acre, and it is greater in protein and therefore more valuable per ton. I don't like to say it right here so near the mills, but we Wisconsin farmers are not buying any bran, as since we can grow alfalfa it takes the place of bran. I hired an Englishman a few years ago to work for me. I went around with him and showed him the different feeds we were feeding to our sheep and among others those we were feeding for the show. After I had shown him all the feeds, among other things alfalfa hay, he said: "Where is your bran?" I said: "We have no bran." He couldn't see how you could balance a ration by having a coarse feed of only one kind. I fed them freely of alfalfa and let them have a little coarse grain. Well, he objected to that; he was always a grumbling, he couldn't get it through his head until we got the sheep into the show, and our wethers won over every other state except Minnesota; I don't know whether they were fed alfalfa or not; probably they were fed peas. (Laughter.)

A Member: In connection with this alfalfa: There is a section of country small in proportion in this state where the sand is from four to eleven feet deep, but it rests upon a bedrock. Now, if you dig down from the surface four or five inches the sand will be damp, at least a damp feeling, but the top surface is dry. Now, has anyone had any experience trying to grow alfalfa on this kind of soil, where the roots would strike water if they would penetrate down to near this bedrock? Can anyone give us any information upon this point, and the work to get it started to grow in this sandy soil?

Mr. McKerrow: Well, I should try it on that kind of soil. But I did not get through telling about my Englishman. When the wethers won, of course he didn't talk any more about bran. He went to work for another party early in the summer. I got a letter from him, and I could spell out in every sentence "hal—"; he spelled it with an "h," halfalfa. He wanted some alfalfa to feed with his clover. Now, in regard to the soil you have described. I think you can start it on that soil. Is that in a latitude where you get a fair amount of moisture?

Member: Well, up and down the Minnesota river.

Mr. McKerrow: Well, I would go in and try it. Top dress it the first season, and see if you couldn't get it started, and then you could find out something about it.

Mr. Gibbs: Will you let me answer that question?

Mr. McKerrow: Go ahead.

Mr. Gibbs: Last winter, as I see from your report here, I stated how I had overcome a difficulty of that kind out in South Dakota, and I recommend this generally to experiment on a small scale, and that is to sow the seed and then plow it under and see how it works. It is only required to get the necessary moisture for germination without sacrificing the necessary heat. I think this would overcome the difficulty on that sandy soil.

The Chair: I assure you that this, as well as the other subject of the afternoon, has given us a great deal of practical information, and we feel very grateful to these two speakers for the useful and interesting information given us. This meeting will be continued at eight o'clock this evening, and I trust that each one who has attended this meeting will try to be here at that time.

Now, it has been requested that any who have certificates try and get them here to Mr. Randall.

There are programmes here that each of you can have by coming to the desk. Any of you who have credentials will report them to Mr. Charles Kennig, or to any of the committee. Any of you who have resolutions will hand them in here to Mr. Randall, or to any member of the committee on resolutions.

TUESDAY EVENING.

Jan. 13, 1902, 8 o'clock p. m.

(Under the Auspices of the Minnesota Stock Breeders' Association.)

J. J. Furlong presiding.

Mr. Furlong: It was a great pleasure to those present this afternoon to have the opportunity of listening to these two addresses that were so ably delivered, and on questions of so great importance to the people of Minnesota. We promised you this afternoon that if you came here tonight we also had in store for you subjects that were equally important and to be delivered by parties equal to the emergency. Now, if you will all come as near to the front as you can you will be able to hear the speakers better and keep track of their discourses, and it will be of more benefit to you.

I am pleased to state to you that the membership of the Live Stock Breeders' Association has increased very rapidly; it is almost going beyond our most sanguine expectations. Any of you who have not paid your dues this year will have the opportunity of so doing by giving your name to Professor Shaw, and any new member will have an opportunity to join by paying one dollar; it will cost you only one dollar to join and one dollar per year thereafter. The advantages you derive through the literature of the association I believe is something that you could not get in any other way. It is the rule of the organization that their members shall be reputable breeders, and strangers can rely, I think, upon the members enrolled upon our books.

The subject for this evening is "The Horse for the American Farmer to Raise." That is a very important question, and will be discussed by H. A. Briggs of Elkhorn, Wis. I have the pleasure of introducing to you Mr. Briggs, who will now address you. (Applause.)

THE HORSE FOR THE AMERICAN FARMER TO RAISE.

H. A. BRIGGS, ELKHORN, WIS.

Mr. Chairman, Ladies and Gentlemen: It always affords me a great pleasure to receive applause before I speak, because I am sure of getting it then. After the talk your chairman has given you I am afraid you are going to be a little disappointed, because we had a very able address this afternoon, and I hardly feel equal to the occasion of following in his footsteps, but the subject assigned me I think is one that comes nearer to the hearts of the farmers than any other subject: the farmer's horse, or the horse for the American farmer to raise. There is no class of live stock that comes so near the heart of the farmer and the farmer's family as the horse. The lady this afternoon. in speaking of the sheep, said that he had no attachment for home. It is not so with the horse. I have seen horses so homesick after being taken from their home to strange quarters that they would actually refuse to eat for several days, or only eat enough to keep life in their bodies for weeks or months. In fact, I bought a horse once to ship that was so homesick that he wouldn't eat only when I stood beside him, so that it was necessary, if I kept him in flesh, to stand beside him when he ate. Now, this subject of the horse for the farmer to raise I suppose is the subject you want touched on from a financial standpoint, because there is no farmer, I think, in Minnesota, that is going to raise horses, or any other live stock, for the pleasure they are going to get out of it without any income; but judging from the looks of the horses as we travel through the country, I should think the horse for the farmer to raise was anything and everything that comes under the name of the horse, especially so in depressed times. Perhaps it is just history repeating itself, because the horse came to America with the earliest settlers, and from all appearances was a much more welcome guest to the Indians than the white man was. Colonial history tells us that the horses increased so rapidly that they began to deteriorate in size. Some of the colonists passed laws restricting turning at large any horses at all, and in some sections they were prohibited from breeding any horses that did not come up to the standard size. Now that is a pretty good feature, and if the state governments would take it in hand, not discriminating as to size perhaps, but prohibiting the horse for public service or special service, unless he is pronounced sound from any and all hereditary diseases. In that way I think we would improve the health of the horses in the country. We might go a little farther, I think, and have a veterinarian classify them, because there are a great many farmers who don't know the difference between a good horse and a poor one—classify and grade them, first, second, third and fourth grade, and give the man a certificate; then if a farmer was in doubt as to the reputation of the man he was buying of he could ask for the certificate and see whether he was all right or not. And to carry out this idea a little farther, if you would look over some of the correspondence of the breeders and dealers in horses, you would think I am about right. I know one mail brought me at one time a letter reading like this, from a good farming community in South Dakota: "I want a horse; a stallion that will weigh not less than 2,300 or

2,400 pounds in spare flesh, heavy mane and tail, star in forehead, with good knee and hock action." Another letter says: "I want to buy a draft stallion, solid color preferred, good actor, weighing not less than 1,500 pounds." Another letter I picked up read something like this: "I see by your advertisement that you are handling horses. I want to buy one for my boy to use; must stand not over thirty-six inches high," etc., so there is a description of about the kind of horses that the markets of the farm want. Now, in the first place, that first correspondent, his horse in thin flesh weighing 2,300 to 2,400 pounds, in good flesh would weigh 2,800 pounds. He would be of no earthly use to the farmer or breeder. The only one that he would be of service to would be to the patent food man to advertise his goods. The second one, 1,500 pounds for a draft horse, doesn't know what a draft horse is, because he would simply be a chunk, and the third would be simply a toy. Now, the first thing we want to do, we want to study the market a little. If a merchant goes into the mercantile business he looks over the community and finds the class of goods he is to be called upon to sell, and any man starting in the live stock business, whether horses, cattle or sheep, wants to look up the demands of the market, and find the class of horses, or cattle or sheep that are selling the best as a staple article on that market. We have at Chicago probably the largest horse market in the world. The annual report, out just a few days ago, says: The demand is on the increase, and the supply is on the decrease. Prices have ranged at least $10 higher than for 1901. Recent sales, draft horses $262.10 per head for an entire carload of nineteen head. Former sales, $228 to $238. Single individuals ranging from $166 to $400, and some recent sales as high as $450, a man that made a specialty of getting up draft teams being offered as high as $500. Carriage horses quoted at from $225 to $550; average about $450 per span. The good chunk, or the good general purpose horse, as the majority of farmers classify them, and insist that they are the only horses that the farmer ought to raise, has been selling at $117 per head, whereas bussers and trammers sell at $75, and the common southern chunk—I am sorry to say a good many of them are raised in the country—sold at an average of $57."

Taking this as a basis, which class of horses can the farmer raise and make the most money on? I think about nineteen out of every twenty will succeed with a good, clean-cut, heavy-boned, draft horse, that, when fitted for the market, weighs from 1,700 to 2,000 pounds. Well, some of them say: "I don't like those great, big, bungling things." Well, to that man I would say: "Then don't raise the draft horse, because you will not succeed with them." A man will not succeed and live happily with a horse or anything else that he does not like; in fact, if he lives with a wife that he doesn't love, I don't think he will live happily with her. But select a horse that you like, whether a draft or coach horse. I will speak first of the draft horse, as there is room enough at the top for the good horses of all breeds. Some man will say: "I could not like the Clydes, so many of them have poor feet." Well, you can find poor feet in any horses, or good feet in any horses. Select the kind you like, and the best of that breed, and if you select the kind you like, and breed for the best, you will have a pretty good class of horses.

Now, this depression in the horse market along in the nineties has been of some benefit to this country, but it always has been of a great deal of damage. Take it along in the early part of the nineties, we had a good many grade draft mares in the country; well, this depression came on, as Mr. McKerrow spoke of in the sheep industry, when the market goes down everyone wants to jump out of the business, and in that case he loses a good many of his breeding horses, and some of his good sense, if he had any, and it takes you a good while to get either back. But if we should select some of our best brood mares during those times, and not breed quite so many of them, but pay more attention to quality than to numbers, we would have the best class of draft mares and geldings today, I think, in the country, and that would compare very well with the old country. But we have lost that by selling everything we could sell during the dull times, and there is where we differ from the English or the Scotch farmer. He follows the plan laid out that I say we ought to follow, and just as long as we are so fluctuating in our whims with regard to selling out and buying in, just so long we will have to look to the old country for our foundation breeding stock; but if we are to start in raising horses, let us select the best grade of draft mares we can find, and cross them with the best draft stallion we can get, weighing about 1,800 pounds; that means, if fed up for show purposes, 1,900 or 2,000 pounds, and I find with that weight of horses, breeding to good grade draft mares, you get better results than with the excessively heavy horses, or one under size; that is, get the size of your mare and the size of your sire as near of a size as you can. You will occasionally get a good colt from extremes, but, as a rule, you will get something that is not a good marketable horse. Now, when we speak of the good sire, I don't mean every horse that the traveling salesman going around the country says is a good horse. He may say his horse is worth $3,000 or $4,000, was in a sideshow somewhere, and it would be impossible to sell him for any less; that wouldn't make him so, any more than an apple tree agent selling you a certain kind of apples and saying they were so and so, and when they come to grow they are a crab; but if you can influence some good man who has money and knows a good horse to buy one as an individual and keep it for his own use and the use of his neighbors it is a good thing to do, but the depression has taken a good deal of the sand out of the horsemen, and there are very few that want to put any $2,000 in a horse. But, I would say, three or four of you club together and raise the money and go to some importer and breeder that lives near you that has a reputation—a moral reputation as well as a financial one—and look over his stock. Select the horse that will suit you, and in picking your horse don't have one individual horse stand out by himself, but line up half a dozen and pick out one that has the best qualifications for a draft horse, and if he hasn't what you want, go to some other breeder, and I will guarantee that for from $1,500 to $2,000 you can buy just as good or a better horse than the scalper is trying to sell you at $3,000 to $4,000.

Now, perhaps it would not be out of the way if I would tell you what I think is a good type of draft horse. In the first place, you want intelligence in a horse just as much as you do in anything else. Then you want a good, broad forehead, good, prominent eye, with ears well set, not too wide apart, not too close together, but set up so they look active; with a good, large, open nostril; what does that indicate? The nostril is just an extension of the lungs, and if the animal has large nostrils, with just a thin membrane, it shows that the horse has good lungs; a good neck; I mean not a coach neck, but a neck well cut up, shoulder well set up, with considerable slope to it. A horse has to do a good deal of pounding in his travels, a draft horse not so much as a coach horse, but if you take a horse straight from the top of his wethers to his feet, he is in time going to pound himself until he is sore, but you get an angling shoulder and the horse can get his head up better, and then an angling, sloping pastern, then when the horse puts his foot down it will give; with a good, broad chest, ribs well sprung; that shows he has good heart girt, good lung power and a good dinner basket. Now, a horse that cannot carry a good, big ration of feed in him is a poor horse to keep, except to look at, and the short-ribbed horse has had his time among dealers, and is a horse that is always avoided by men intending to ship, because they are a poor feeder and don't carry dinner enough to last over a few hours. And when you come to the hind legs, if you will notice a horse when he is pulling a load, all the weight of the draft with that horse comes on his loin, on his hind legs; they want to be a happy medium between too crooked and too straight; if they are too straight they are going to jar the horse when he travels, but get a good, clean, flat hock and good feet, then you have a horse that you can tie to.

Now, if you do not like, as I said, the draft horse, then breed the coach or carriage horse. There is good money in them for a man that has a taste for it, but if he cannot make a fairly good success of breeding draft horses, I am very certain he would make a failure of the coach or carriage horse. It takes too much trouble to fit them for the market. A draft horse can be put on the market at four years old with very little expense, but a carriage horse has got to be finished up, well broke to drive, and handled, and in shape so you can say: "Here, you can take this horse and take your family and drive by the electric cars or the steam cars and have no fear." If you have a horse like that, with good style and good actions, you can set your own price on it. Another thing why I prefer the draft horse: If I have a good draft colt and he gets a little scratch it doesn't condemn him, but if you have a carriage horse and he gets a barb wire scratch you have to sell him at a sacrifice. If we are to breed carriage horses I think we have as good foundation stock in America as we have in the world. If you select the best type of trotter mares and they have considerable style mate them with the best type of carriage horse you can find. I have said a good many times, and I am not going to take it back, that the American road horse, if he has size and quality, makes the best carriage horse in the world. I think a good many in this audience will bear me out in what I say. In the fancy horse shows of Chicago and New York the American bred trotting horse that has size and quality and action carries off more prizes than the foreign coach or hackney horse. Now, if you cannot get this sire that has size and quality—he should stand fifteen to sixteen hands high and weigh from 1,200 to 1,300 pounds, with good knee and hock action—then get some of the good, improved coach breeds that have these qualifications, but if I can get the standard bred trotter that is what I want, because they breed better from the mares than the coach horses.

Now, some of you will say: "It will only be a few years until the horse will be a drug on the market again." If you will look at the statistics for the year 1900 you will see that the government reports give you 1,478,150 yearling colts in the United States. Now, that looks like a good many, but when you come to consider that the cities of the United States every year use up 300,000, and for all other work in the United States there is used up 200,000, it doesn't take but very little figuring to find that when these yearling colts come onto the market in 1903 or 1904 you are going to be short in horses about 125,000 head at the present demand. We have said nothing about the foreign demand. London alone requires 125,000 head per year. Our export trade for 1902 was about $9,000,000 worth. For 1901, when the South African war was on, it reached $11,000,000, and the Chicago horse market today, if you look up the reports, says the demand is good, foreign buyers are coming more plentifully than ever before, looking for the best class of horses we have. Does it look as though the horse market was going to be overstocked in one year, or two years, or ten years? I do not pretend to say but what it will be sometime, because every branch of business under the sun has its ups and downs. The supply and demand regulate it all the way through. But I think, with the present outlook, it is a pretty good time to commence breeding horses. I do not expect, and I hope it will not prove so, that any farmer who has a good flock of sheep, or hogs, or dairy cattle, will sell them off and go to raising horses. I think, however, that every farmer in Minnesota with 80 or 100 acres of land should raise one to three colts every year, and I will guarantee there are a good many farmers in this audience—although they don't look like that—when they come to do their spring work this year, will have to come to the Midway barns and buy a team of horses to help them out with their work. There is no reason why he shouldn't raise all the horses he needs for his own use, and occasionally a horse to sell. They can be grown very cheaply, because a horse grown in connection with other live stock will eat up a great deal of the roughage, and can be raised very cheaply.

Now, a word with regard to growing the colts. We have this grade draft mare, or suppose that we have; we have this original Percheron or Clyde stallion. Now, you may have all these, but if you neglect to feed you will have the veriest scrub on earth. It may be a grade scrub, but that is the hardest horse to sell in the world. Horses want to be kept growing from the time they are foals until they are put on the market; never allow the baby beef to get off from them, and if they are properly grown in that way they can be put on the market from six months to a year sooner and they will weigh 100 to 300 pounds more. I know farmers have said that they wanted to starve their horses a little and make them tougher. Well, if you can make more money in that way, and can prove it, you should keep right along in that way, but I think with the other plan you will be much better pleased.

Another thing, if a stock buyer comes into your neighborhood, if you have any horses to sell, I think about nine out of every ten you try to sell to will say: "My friend, you have a pretty good horse there, but he is out of condition; he wants a little more feed; keep him and feed him a month, and I will try and buy him of you." If you insist on selling he will buy him of course, but he will buy him at a discount. Is there a farmer here that has a good grade of shorthorn steers that would put them on the market before they were properly fed? Now, there is more money in feeding a horse for the market than any other branch of live stock. If you have a draft colt that in good working condition will weigh 1,600 pounds, if you will put him up and feed him until he puts on 200 or 300 pounds he will bring you from $25 to $75 more, and it will cost no more to put that 200 or 300 pounds on him than to put it on a steer.

Now, there is one thing I think we have got to do in breeding horses as well as in any other branch of live stock in this advanced age and generation, and that is we have got to give it more study, and here is where our agricultural colleges are coming in, and I hope it will prove true, that the next generation of farmers that comes in will be students as well as farmers; that is, that they will be working their brains as well as their muscles, and then you will seen not so many half-fed and half-bred classes of live stock coming onto the market.

Now, to make the comparison between the American breeder and the Scotch or English breeder: The breeder of the old country has an object in view; they live on the same farm generation after generation. When you go to those old homesteads in England, or Scotland, or France you will see the grandfather, the father and the son all living on the same farm, and the grandfather, when he started out to work, took it up where his father left off. Every generation then just kept right on and tried to improve on a certain line of stock, a certain line of breeding, until they have got the best types of cattle, horses and sheep that there are in the world for foundation stock. Now, some farmer in Minnesota may say, "Why, there is no use in his trying to raise horses; we are outside of the corn belt, outside of the stock growing district; we cannot raise these good horses." Now, my friend, you can grow in Minnesota just as good a horse as they can anywhere in the United States, and that means anywhere in the world, if you will breed and feed properly, and any man that is buying a horse and understands the feeding system that is carried on in Minnesota, and that that is carried on in the corn belt—that is, southern Iowa and central Illinois—will give you more for a horse fed and bred in this northern climate than in the southern climate, if he is going to keep him for his own use, because he has been fed what is termed a balanced ration, more oats, bran and clover hay. His bone may not measure quite as much, but it will be of that flinty quality that will be worth two or three times as much as the spongy, loose-jointed bone made by the fat-producing food like you get in the corn.

Now, perhaps some of you would like to ask me some questions. My audiences of late years, the last three or four years, have been one or two men, and then I would talk to them on the principle of buying. If I should talk to you on the principle of buying and sell one of you a good breeding horse and get you to settle for it before I went away I would think I had accomplished a good work—that is, for me.

Dr. Curryer: Will you explain, Mr. Briggs, just what you mean by quality?

Mr. Briggs: If I had the two individuals here I could explain the difference.

Dr. Curryer: Must you have the two to tell us?

Mr. Briggs: I could tell you through your eye a good deal better than through your ears. There is a difference between quality and quantity.

Dr. Curryer: Well, in speaking of horses, there must be some indications that will determine.

Mr. Briggs: Well, in a horse you can determine quality in the looks of the animal; the looks of his coat; the looks and the quality of his bone; if it is a clean, cordy, flinty feeling bone, like the running horse has, and you can get the same quality of bone in the draft horse if you look for it; perhaps the doctor can use language that will explain it better than I can.

Dr. Curryer: Well, you are dealing with the subject and dealing with horses, too, and I think if you could define that matter so we would all know just exactly what you mean, we would understand the whole subject better.

Mr. Briggs: Well, that is what I have been trying to do, but don't seem to be able to get it so you will understand it. It comes more, I think, from the experienced eye than anything that can be told you.

Dr. Curryer: Well, how are you to get that? Through the experience of others?

Mr. Briggs: Get the experience of others through the best teachers; it takes some time, though.

Question by Professor Shaw: Can a man always convey in language an idea that he wants to express that will enable the individual absolutely to understand it without using somewhat the sense of touch?

Mr. Briggs: I cannot. My gift of language is not sufficient. It might be with some. In draft horses it is very hard to get the quality and quantity in the same horse; that is, if you increase in size you are very apt to decrease in quality. It is very much easier to get a draft horse with a great deal of quality weighing 1,700 pounds than to get a draft horse weighing a ton with the same quality.

Question: Wouldn't it be safer to breed the 1,700 pound horse?

Mr. Briggs: Not always, because the market is for size as well as quality, and you cannot get from these 1,700 pound horses size enough to command the highest prices.

Question: Wouldn't there be more of the heavy kind that you would have to reject?

Mr. Briggs: I think not, because there is quite a demand for these horses, say in the lumber woods; there is a market for these horses that lack in quality but still are good in size. I have in mind a horse that used to be owned by Mr. Leonard Johnson—Old Gilbert; there was as typical draft horse as I ever saw, and if you can keep the model of Old Gilbert in your eye when you buy a draft horse, you won't miss it but very little, and remember, in buying a stallion, as I said before, to go to a barn where there is a number of horses and get a comparison. You take one horse by himself, he is groomed up nicely, mane trimmed up nicely, and he looks very good by himself, whereas if you had a horse of the type of Old Gilbert to stand up beside him you would say: "That horse is a very poor gelding for the market."

Question: To breed a colt with good quality, which would you do; would you use a stallion smaller than the mare, or would you use a smaller mare?

Mr. Briggs: If I was making quality my leading feature, with the quality in preference to weight, I would select the draft stallion weighing about 1,700 pounds.

Question: I wanted to ask you which you would use the larger, the mare or the horse?

Mr. Briggs: I would try to have them as near uniform in size as I could, although if you can get the mares I think you would get the size and the quality combined better by using a sire of 1,700 pounds with lots of quality, and the mare probably weighing a ton and perhaps lacking a little in quality; in that way you would probably get a better quality of colt than by having the horse of excessive size and the mare of the smaller weight.

Question: Mr. Briggs, I would like to ask your opinion in regard to line breeding.

Mr. Briggs: What do you mean by line breeding? In breeding?

Question: No, sir, but in the same breed. Many of our farmers are crossing.

Mr. Briggs: Well, that is the great trouble with the horses of this country; they do not breed in line. They have a draft mare this year, and they say, "I am going to raise a draft mare;" then they raise a draft horse. Then someone will come along and say: "You ought to breed a horse for the track," and he will breed the draft mare for a trotter. Breed in line. If you are breeding Clydesdales, breed right along in that line. If you are breeding Percherons, breed right along in that line as near as you can, and what has been done with the American road horse is a practical illustration of what we can do with "in line" horses in this country. Taking the old English thoroughbred as a breeding stock, we have remodeled the horse by breeding until we have established the best type of coach and carriage horses in the world. We have established the best road horse in the world, and when it comes to raising horses for sport, why all the civilized nations are coming to our market for racing horses. We have the soil, the climate and the feed, and it doesn't cost only about half what it does in the old country. Now, there is one breeder in Illinois that breeds in line; he has had his model in line for years. He has sent thirty-two head of stallions to the old country, and many of them have been prize winners in that country, and what one man has done others can do.

Question: Who is that?

Mr. Briggs: Colonel Holloway. Live stock in the hands of the practical breeder is just like clay in the hands of the molder, only it takes longer to perfect your model. This can be demonstrated when you compare the immense Clydesdales with the Shetland pony. One is bred on the Shetland Islands, where it has been pampered to get the least size and the least weight, while the other has been bred in Scotland, where they feed well and breed in line, and you have the massive, heavy-boned Clydesdale horse.

Dr. Curryer: Mr. Briggs, I would like to ask, what are the most common defects to be found in the draft breeds that are bred here to sell?

Mr. Briggs: Well, I will tell you my experience, and I guess that will illustrate it, although the French bred horses are not so subject to "side bones," but my greatest trouble in picking up horses in the old country is to find them with their hind legs and their backs to suit me, with heavy bone, good, wide, flat bone, good angling hock, well cut up from the loin, with a short back. Speaking of side bones, that is practically a new imperfection in horses. We hadn't heard anything of it until within the last few years. That is something we want to fight against, because I believe it is hereditary. I have in mind a breeder in Illinois who breeds Shire horses, good breeds, with lots of size and a good deal of quality for the weight they have, but in looking over a bunch he had at a show in Chicago a few years ago—I think he must have had six or eight—there wasn't a single horse but what had side bones. His oldest horse, that he had at the head of his stud, had side bones, and I think every colt he had also had them. The side bone comes just at the head of the hoof. Some men that pretend to be horsemen are ignorant of this thing. I was at a horse show in France this year and two men were buying horses, and they used, as an illustration, such a fine colt that they had bought, and they had bought him at such a bargain, and they were trying to buy all the rest at the same bargain they had bought this one. Well, I happened to be doing a little business with one of these men a little later, and I asked them about this colt, and they pointed him out to me. He says: "He is a fine colt, but he isn't worth a dollar." "Well," I says, "what is the matter?" "Well," he says, "he has those things on his feet that you Americans don't like."

Dr. Curryer: Do you find the side bones on the springy pastern horse as much as on the straight pastern horse?

Mr. Briggs: No, we don't. That pastern is the most important point of this sire. You must have a springy pastern there or he is going to get sore around his fetlocks or get sore somewhere in his body.

Dr. Curryer: In using the straight pastern horse, you would be afraid of the side bones in the offspring?

Mr. Briggs: I would if I was going to use him. If the people on the ranges would pay more attention to the weaning of the colt the range bred horse would be our strongest competitor. The colt on the farm should be raised in such a way that the farm mare can be worked, and raise the colt in that way when the mare is in the field at work; have a box stall where the colt can be shut up away from the mare and the mare will not fret as much as though the colt was following, and the colt will learn to nibble at grain, oats or bran when three or four weeks old, and when this colt is four or five months old take it away from its mother. By that time it is practically weaned. Then keep this colt growing on all the good nourishing feed that you can give it; that is, oats comes nearest to a balanced ration, and bran is a good feed; good, bright clover hay is the best thing in the way of hay, but give this colt all the grain and hay it will eat up clean and digest properly. Of course you can crowd a colt, and it will pass through the system improperly digested. You should watch both ends, and see that it is properly digesting its feed. If you allow it to have plenty of range and plenty of exercise there is no danger of overfeeding if you come onto the feed gradually.

Question: If you let a colt run to bran, and let it have all it wants up to the time it is weaned, would that be all right?

Mr. Briggs: Yes, that is all right. It won't overeat.

Dr. Curryer: If it has plenty of exercise.

Mr. Briggs: If it has plenty of exercise.

Question: Mr. Briggs, isn't it a good idea to feed skim milk to colts?

Mr. Briggs: A very good feed. Do the colt just as much good as it will the calf or pig.

Question: There is such a thing as getting those pasterns too long?

Mr. Briggs: Certainly; you have to have a happy medium.

Dr. Curryer: If he has the spring, Mr. Briggs, even if he has the short pastern, he is all right?

Mr. Briggs: Yes, but what I meant was it mustn't be too straight. I was condemned very severely once, and perhaps some of you remember it; the correspondence was carried on through the Breeders' Gazette at Springfield. I was called upon to judge horses there, and I called down a very good colt of Colonel Holloway's, and one he prided as being a "world beater," because it had that very long pastern and straight hock, and even as a two-year-old colt I could see he was beginning to break down on it, and I was scored so hard by some of our leading papers and some of the leading Clydesdale dealers that six months after that I went to the pasture to look at that colt, and I was thoroughly convinced that I wouldn't breed a service mare to him if I could have the colt for nothing, and the lot thrown in besides.

Dr. Curryer: The sloping shoulder for the draft horse, do you think that is the right conformation?

Mr. Briggs: It is not necessary that the shoulder should be quite as sloping as on the road horse, but still you want a certain amount of slope or he is going to carry his head right in line with his back, but in the sloping shoulder you can get a happy medium just the same as you can in the pastern.

Dr. Curryer: I cannot help looking at the point of usefulness.

Mr. Briggs: I cannot either, but I know there is where you and I differ. You want the straight shoulder, but I want the whiffletree set down a little low, so it will pull down like this (illustrating), and you want it set out level with his shoulder so he will pull right back on it. In the road horse, his work is all in traveling and carrying a light conveyance, and it is necessary that he has a more sloping shoulder than the draft horse.

Dr. Curryer: The spring of the pastern would come in there to compensate for that?

Mr. Briggs: You don't get any spring in the shoulder, but you get a slope that breaks the concussion.

Question: Mr. Briggs, isn't it very often the case where you see a straight shouldered horse you see a straight pastern horse?

Mr. Briggs: They are very apt to go together.

The Chair: If there are no further questions, I wish to say that we feel very thankful to Mr. Briggs for this very interesting talk.

Question: When you take the old draft horses, twenty to twenty-five years old, have those horses been straight or sloping shouldered?

Mr. Briggs: They have maintained their soundness better with the sloping shoulder. There was Old Gilbert, Old Holland Major; I used to think, when I saw Old Holland Major and Gilbert in the show together, that we had two of the most perfect draft horses that we ever had together.

Secretary Randall: During the intermission it was suggested that I call your attention to tomorrow's programme. Tomorrow's forenoon session will convene at half past nine in this room, the afternoon session at two and the evening session at eight o'clock. There are programmes here for all, so that if any of you are not supplied I hope you will get them tonight. You will notice President Northrop of the State University is one of the speakers tomorrow. We have had good meetings today and I hope we will have good meetings tomorrow, and those of you who are here I hope will let your friends know what you have heard and get them here tomorrow, and have the room full at all of the sessions.

I dislike to call on you continually in regard to the railway certificates, but the reduced rate home is dependent upon our having 100. We haven't yet secured that number, so if there are any that have not handed in their certificates I hope you will do so. The joint agent of the railway companies will be here tomorrow and the next day, and he cannot execute and return any of these certificates until he has the full number of 100, so I hope you will hand them in early. I am sure there will be 100, but let us have them early so that when he comes we can give him the number required and enable him to do his work of stamping them as the companies desire. I hope you will bear it in mind so that it will not be necessary for me to call your attention to it at each session, and before going home tonight let me have what certificates you have, and if you have friends that are not here tonight let them know that we must have these certificates so the joint agent may attend to the work.

The Chair: The next question will be "Utilizing Waste and By-Products on the Farm by Means of Live Stock." This subject will be handled by Professor Shaw. There is one advantage we have in this case, and I believe it is a very good one to rest upon. We have all heard frequently from our Professor Shaw. Well, now, there was a play once called "The Two Johns." Fortunately we have "Two Professor Shaws." This is Professor Shaw from Michigan, a son of our own Professor Shaw. Professor Shaw from Michigan! (Applause.) I take great pleasure in introducing to you young Professor Shaw.

UTILIZING WASTE AND BY-PRODUCTS ON THE FARM BY MEANS OF LIVE STOCK.

ROBERT SHAW, AGRICULTURAL COLLEGE, MICHIGAN.

Mr. President, Ladies and Gentlemen: I would like to speak but for a few moments this evening on "Utilizing the Waste and By-Products of the Farm by Means of Live Stock" as being accessory in a way to the remarks that will probably be made on a favorite subject of mine at tomorrow's session, namely, "Economy in the Production of Meats." We regard this question not only of economy in the production of meats, but the question of the necessity for utilizing all the products of the farm to the best advantage, to be a matter of very great importance. This matter was impressed upon my mind more forcibly during some five or six years passed on the Pacific Slope of the Northwest more than any other time; the reason was that we discovered that it was possible to produce meats there at a less cost than almost anywhere else in America, notwithstanding the fact that the corn belt is considered the very best place; if the corn belt was considered the best for that purpose, we found the conditions there very much better. Lands now classified as "open ranges" produce about 250 pounds of cured grass per acre, which, when enclosed within fences, would produce about 450 pounds; these same lands, because of their extreme fertility when placed under irrigation, are enabled to produce about 10,000 pounds of cured alfalfa. Now, it is upon the basis of the use of these legumes as a food factor that that portion of what is now known as the Great West will come into play as a competitor of the corn belt, for this reason: It is possible with these foods—take for instance in the case of sheep feeding—it is possible to accomplish there with a one-third ration of grain and a two-thirds ration of coarse food, whereas we would have to use the two-thirds ration of grain and a one-third ration of roughage under conditions where these legumes are not accessible for use. I will speak more particularly of that tomorrow, but I simply mention this fact, because I believe competition is there going to arise which will affect the meat producers even of the great corn belt. I listened with a great deal of interest to the remarks this afternoon with regard to the production of alfalfa. I believe the possibilities are great in the state for the production of alfalfa. I have already expressed that view, as regards the changed conditions under which I have been placed during the last three or four months, and I found from the four or five years' experience in attempting to grow alfalfa, under a very great diversity of conditions, under conditions of extreme drouth, and where the soil was almost saturated with moisture, that there are two things we have to guard against. One is, we have to select ground for growing alfalfa where the plant can keep its feet dry. The greatest losses arising from the growth of alfalfa is from growing it where the water level is too near the surface, and the roots go down into that saturated stratum and draw a large amount of moisture that fills the plant cells during the late fall, and these cells are ruptured during the extreme cold of winter, producing the death of the plants. That is one thing I want to speak of. Another thing in the growth of alfalfa is this, and I believe it is a very important thing, not only in Minnesota but also in Michigan as well, and that is the use of manure as a top dressing in order to get a stand. The typical alfalfa soils are those that are loose; that is, those that are gravelly or sandy. When once the alfalfa plant becomes established in those soils, that is the ideal place for it. We found that it was of the greatest assistance in getting a stand of alfalfa to use a very light top dressing of manure—not a heavy application, but one that was very light, and not applied exactly on the top, but incorporated with the top two or three inches of soil. This is getting away from my subject, but I thought I would like to make mention of those few things.

It seems to me there are two or three ways of improving the economy of production on the farm. It appears to me that one of the most important principles is to endeavor to make every square inch of the farm produce to its utmost capacity. In the second place, I believe the next feature of importance is to utilize as much of the waste products of the farm as possible, either in the production of meat, milk or work, and then, in the third place, to return as much of that product as possible into the soil again for the maintenance of its fertility. It is surprising the extent to which the products of the farm could be increased by carefully worked out plans for the retention of the plant food. I had some five years' experience in working out the problems of the retention of plant foods, and I learned a few lessons from it. In our experimental farming we had three crops, two legumes and one root crop, and we found by that method of retention there was no perceptible decrease in the product of the soil. It is possible there may have been, but if there was it was so small we could not detect it. The humic conditions were such that the plant foods were there in great abundance, but without the greatest possible amount of the straw and the grain produced is not returned to the farm, it would not be a great while before there would be a noticeable diminution in the soil fertility, because if the humic conditions can be maintained to a certain degree, then the great stores of plant food in the soil would be made available for plant growth. There is one reason why these retentions should not always be used on the farm: There are some staple crops which it would not be wise perhaps to use in that way, because of their commercial value; but the chief argument is this, that in general these products, when converted into meat, milk or work, will bring a greater cash return than if placed upon the market without any change of form. I quote some statistics that we have secured personally in regard to this, in two instances in particular. For instance, in 1899, when clover hay was worth $5 per ton in the stack, the same hay fed to sheep brought a return of $7.83 per ton when mutton sold at $4.68 per hundred weight on the local market. At the same time slightly damaged wheat, which was worth on the local market forty cents per bushel, when converted into pork, brought a return of about eighty cents per bushel. There are some conditions under which this may not hold true, but in general it is true—that is, providing the conditions which are used in the conversion process are of the most economic nature, then it will be true, unless because of some sudden fluctuations of market conditions.

With regard to the proper utilization of the waste or by-products of the farm, I want to say, by way of illustration, the following: During the season of 1901 we took 112 acres of a western farm upon which fifty-five acres of grain had been produced. There were various kinds of grain stubble there, barley, oats, peas, spring wheat, and fifty-seven acres of clover stubble; the aftermath of clover had probably grown up some three or four inches. It was quite late in the season before an attempt was made to secure what we might call the waste products of that 112 acres. In attempting to do that, eleven young yearling steers were turned on that area, one carload of 230 lambs and twenty-four pigs. They were carefully weighed before going on this area, weighed three consecutive times under exactly similar conditions, and an average taken of the three weights. During the forty-three days that these animals were kept on the grain stubble we found that those eleven steers made an increase of 447 pounds, the twenty-four pigs 877 pounds and the 230 lambs 2,230 pounds. These increases in live weight, valued at local prices, and making an allowance for a small amount of supplemental food used during a two days' snowstorm, gave an actual return from that 112 acres of $161.69. (Applause.) I believe that this is a little higher than it would be possible for some of our farmers to realize, for this reason: The climatic conditions were somewhat different; there was a little more shattering of the grain, and consequently a larger amount was left on the field, but you will notice the ideal conditions of legumes, and then the variety of grains for them to secure on the other hand. Now, there was another interesting feature that developed with regard to the relative capabilities of the various classes of animals to turn to the best account the waste products of the farm. The only way in which we could determine the relative capabilities of these animals was by figuring on the relative increase in live weight. The relative increase in live weight of those steers during that period was 5.19 per cent; from the sheep 19.2 per cent, and from the pigs 32.1 per cent. Of course there was a decided advantage in favor of the pigs because of the fact that there was a small area of pea stubble upon which they gleaned and made very rapid gains, but we found by other investigations that that proportion held good. From this same 112 to 118 acres the net receipts from our sales of swine during the year was between $300 and $400 annually, and almost without exception the pork produced on that farm was produced from what might be termed the waste or by-products, damaged grain or roots, the scattered peas, alfalfa hay, with grain screenings or something of that sort. Of course we never in any case attempted to make roots or alfalfa, or any of those foods, an exclusive ration.

We come next to another matter that is attracting our attention, and that is the utilization of some of the by-products of the cereals, and we have there one or two products, such as the screenings and straw. The cereal grains, of course, we do not take into consideration, as they will not classify under the topic with which we are dealing. Now, with regard to screenings, that is something that the farmer of Minnesota does not have to deal with to any great extent, for the reason that if his grain is sold grain and screenings go together to the elevator, and they become a factor that the elevator man has to deal with. If the grain is fed the two are fed together. There may be conditions developing in this state in which such food products as these have to be dealt with. We find it is possible to utilize certain forms of by-products to good advantage in the case of pigs, but we find that sheep will convert these by-products into meat at the least cost and with the greatest gain.

When it comes to such by-products as straw, I have found, when we come to look over the conditions of the great Northwest, that enormous quantities of straw are annually destroyed by the various methods of harvesting. These are left in different forms; in some instances large amounts of stubble are left on the ground; in other cases almost the entire straw—for instance, where the header is used. These are burned, and the most valuable fertilizing portion of the plant destroyed. In other cases again, this straw is gathered and finally burned in heaps. We find that for every ton of straw that is produced a large quantity of fertilizing material is removed from the soil. If it is possible to return this to the soil in some form then the exhaustion of soil fertility will not be so rapid; for instance, perhaps one-third of the nitrogen and one-third of the ash material would be returned, providing the straw were returned to the soil. The experience of those who have attempted to return the straw to the soil in a partially rotted form is that that is not the condition in which it should be returned to the soil to produce the best results. Attempts have been made to utilize the straw in certain portions of the Northwest by using it for live stock purposes; the idea was not to incorporate it in any feeding process, but to use it for manure, but we find in cases where cattle are turned to the straw stack a large portion of the food value is lost, because almost the whole stock is trodden into the ground. We find also that the fertilizing value is lost unless incorporated with other materials. Because of that the following plan was adopted: Sheep feeding operations were conducted at the same place along with the feeding of horses and cattle. The horses and cattle were not allowed access to the straw stack, but the straw was fed to them through racks, and alfalfa and clover was fed in addition to the straw, and at the same time we were feeding a small quantity of carrots, about one peck to each horse. By mixing the straw material with the other kinds of feed we found in the case of the matured manure that it proved to be a very satisfactory fertilizer. In addition to that this yard was used for feeding the stockers. We are firm believers in a large amount of out-door exercise for stock, and this result was attained by feeding in this open yard, and we found the chemical conditions of this straw pile manure, when we got through with it in this way, was that it could be applied to the soil without any serious results.

We have gone just so far, and have noticed the uses of one or two of these by-products, and it would not be right for us to stop just at this point, for the reason that we have not come to the point where these can be utilized by incorporating them in the soil. There is a great difference of opinion in regard to the use of what might be called stable manures, and also the necessity for them under Minnesota conditions at the present time. The time, however, will come when the necessity for their use will be very keenly felt, and I feel it is best to avert that by making use of them at the present time. I know some very strong arguments could be put up against this, but I believe it may be possible for the Minnesota farmers to apply these manures to the land with good advantage at the present time. We believe this, also, that while the ideal conditions seem to be to incorporate the manure with the soil as long as possible after it is made, under many conditions that is not possible. We believe, however, that the practice of reducing the manure to a thoroughly decomposed condition before applying it to the soil is very important. That was very forcibly impressed upon our minds in using farmyard manure in a semi-rotted condition, coarse manure or stubble; where the rainfall is scant we find that it holds the soil particles apart, evaporation takes place very rapidly, and where this coarse material is in the soil open spaces or air spaces will occur, which will interfere with the plant roots; and in this connection we find that the ideal conditions seem to be those under which the manure is made and worked up by animals at liberty, and while the open shed might meet all the requirements of an ideal condition it might be claimed by some that the closed shed, under present circumstances, is the proper thing; at the same time, I believe the time is almost come when we are about to give up the basement barn with its cold walls, and the stall feeding of the steer, and give them more liberty, and that we are going to get better results from it. We will no doubt get better results from the feeding operations, and we will undoubtedly get better results so far as the manure is concerned. For instance, the practice with many of us at the present time is to heave the manure out of the window, to fall back under the eaves and against the sides of the barn to discolor the sides of the barn, to rot out the sills, and to have all the soluble part of the plant food washed out by the drip from the eaves, while in the case of the sheep pens the manure is removed but once a year, in a fire-burnt condition that renders it practically no good as a fertilizer. But by feeding in the yard and having the feeding racks changed occasionally so that the manure can be thrown out, then the manure can be used with perfect safety and with very little loss. If the conditions of the soil are such that there is danger of throwing the crops down as a result of the application of manure, we have crops to which we can apply it where that will not occur, and that is in connection with the corn crop, a crop we cannot pay too much attention to; another place is the permanent pasture. A question arose the other day, and it seems to me it is a very important one, down at a live stock meeting at Detroit, and it is this: What portion of the farm should be left to permanent pasture? In other words, how many pounds of meat will a permanent pasture yield in comparison with a given amount of corn, or a given amount of fodder of some kind? I do not believe there are any conditions under which we can get a greater return from manure applied than when applied occasionally to a permanent pasture. I can remember an illustration of that kind on the old Mississippi farm; a field of some fifteen or sixteen acres in extent; one-half was top dressed with manure and the other half not, and quite early the following season when one part of that field was brown and dead there was a luxuriant pasture on the other where the top dressing was applied, and during all the balance of the season there was a luxuriant pasture for the animals on that portion of the pasture.

Another thing that we would classify with the by-products is the products of the corn plant. The corn plant is king in this country, as the alfalfa was king in the great Northwest. But we have come back to the corn plant again, and this question arises—I don't believe it has been answered yet—the value of the silo from the dairyman's standpoint has been pretty well established, but do we know accurately what the value of the silo from the beef producing standpoint is? We heard a little about it this afternoon from the standpoint of mutton producing; now, a Michigan institution has worked on that for two years, and is following it up this year: how many pounds of meat will an acre of corn put into the silo produce as compared with corn that is cut and put into the shock, or corn that is husked from the standing stalks? In the one case there is no waste; in the second place there is considerable waste, and in the third a great deal of waste. We have found that the ideal conditions for putting up corn ensilage from the standpoint of meat production, which would apply also from the dairyman's standpoint, is to allow the corn to become quite ripe, perhaps a good deal riper than the average silo filler would want it—almost ready to husk, and then leave the shredder head on the ensilage cutter and the knives as well. By doing this you will not find a piece of the ears of any size and you will not find a piece of the stalks, but you will find it all ground up, and this leaves the ensilage in fine condition for feeding.

Professor Hays: Mr. President, may I have just a few minutes?

The Chair: Yes, Professor Hays.

Professor Hays: Ladies and Gentlemen—I want to say, in a preliminary way, that I have been very much interested in Professor Shaw's talk. We teachers like to see these young men grow—grow in the two directions of the experimenter and the teacher. Professor Shaw has grown into both lines, and I am glad to see it.

Mr. Briggs interested me very greatly in the horse tonight. There are one or two things I want to mention that he touched upon. He mentioned a certain horse that had been very useful as a breeder. We are all inclined to think too exclusively of the particular appearance of the individual horse, and not enough about its breeding power. We do not pay too much attention to the external appearance of the animal, but we pay too little attention to the average exterior of the progeny of that animal. A dozen years or more ago I started to experiment with plants, and I think we want to give more study to the breeding of both plants and animals and there are two things that have come to apply with great emphasis to animals as well as plants. Mr. Kerrick, of Illinois, the other day said: "This breeding of plants and animals is all cut out of one piece of cloth." We find that in breeding we should compare the points of very many individuals and also many of the progeny of each parent, where that is possible, and measure the blood of the different branches of the family tree, not only by their individual qualities, but also by the average of their progeny. The average of 100 of the progeny of one parent plant compared with the average of 100 of the progeny of another parent plant gives measures of the breeding value of the two parents, that the best breeder may be chosen. And this last measure is much more reliable than the mere measure of the individual. Some plants which do remarkably well as individuals do not do remarkably as parents. We find a plant sometimes which, though not the highest in the scale individually, is the most remarkable breeder among several hundred mother plants under test. A year or more ago I was in Mr. Delancy's barn at Northfield, where he showed me a horse that was the pride of his heart, that bred strong. He was a good horse individually, but Mr. Delancy rated him much higher than his appearance would warrant. His get averaged high in value.

Now, we want to devise methods. Mr. Briggs referred to the experiment station for the discovery and dissemination of the principles of the science of breeding. The state and the United States government should give more assistance to the study of the business principles of breeding. Methods are needed not only to measure good animals and plants by their appearance, but also by their progeny. We are getting better Jerseys in this country than anywhere else in the world. We are beating old Jersey, and I dare say we could pick up Jerseys in America showing better records than could be shown anywhere else in the world. Methods are needed, for example, of keeping track of the few draft horses which are superior breeders and of the records of their breeding values. Suppose Mr. Delancy's horse has one and Mr. Briggs' has another and there are 100 horses in one breed of remarkable ability to beget superior horses. Let these horses be bred side by side to see which is the best breeder. Let them be measured by breeding alternate years to groups of the best mares. Let those blood lines which stand out the strongest be found out and records made of them, so that these strong breeders will more rapidly gain the ascendancy. If the future breed of Percherons, for example, could be composed of the 100 best breeders now in existence of that breed, what a remarkable breed Percherons would form. It would be a still better breed if only the blood of the best ten were used.

Now, Mr. President, what I got up to talk about was not exactly that, although I am interested in that question. There has been started in this country, under the auspices of the the American Association of Agricultural Colleges and Experiment Stations, a movement to bring about far more extensive scientific study of these problems. Too little attention, too little thought, too little scientific experimenting have been given these problems of breeding. If, during the last fifteen years, as much money had been put into experimental research in breeding as in feeding, much more would be known about how to improve stock and plants. There has been much progress in the last quarter of a century in breeding animals. There has been more progress in plant breeding in the last five or ten years than in horse breeding in the last twenty-five years. This organization of which I speak is designed to bring together the practical animal breeders and practical plant breeders, the experimenters and teachers of animal and plant breeding, the biologists in our universities, with their laboratory equipment in botany and zoölogy, and everyone else particularly interested in this problem—all who care to study and work from a more thorough going standpoint. Let us look forward and increase the value of our plants and animals. I believe I am prepared to say, Mr. President, that by methods of breeding alone, in twenty-five years we can increase the value of all our great staple crops, and of all our great breeds and classes of animals, so that they will produce ten per cent more than they produce today, and at a cost of but a very small fraction of the increased values. At the same time, the conditions under which our animals are kept should be improved, because, as was said this evening, if you do improve and specialize the breeds of the animals and then put them out to be fed and cared for under the ordinary conditions which prevail, they will go down; and this great question, whether we are doing our duty in this respect, comes to us in a great many ways. We say we must keep up the standard of our shorthorn cattle in this country today as in England. I believe we have just as good shorthorn cattle in this country today as there are in England. I am not sure but what we have stock that is better adapted to the conditions of this country, and we want to follow the subject up and find out what is best adapted to this country. Let us breed in America what is best for America, and we will have the world coming to America, not only for trotting and driving horses, but we will have the whole world coming to us for breeding animals of all classes.

Let us put science into it, thought into it, interest and faith into it. America may win in this as in manufacture and transportation.

Professor Shaw: I would like to put a question to Mr. Briggs. Is it a fact that the Hereford breeders a few years ago put a tax of $100 on every Hereford imported? If they could breed better Herefords in America than in Great Britain, why did they put that tax on every Hereford brought over from Great Britain to America? The shorthorn breeders have now followed in the wake of the Hereford breeders and they have put on a tax of $100 on every shorthorn imported into America. If they are not afraid of the better animals on the other side of the water, what is the necessity of putting on the tax of $100 to keep them on the other side? Now, the question is this: Do you think it would be a good thing to put on a tax of $100 to keep Percheron horses in France?

Mr. Briggs: No, not while I am in the business, but I might say that it is pretty near that way now, according to the decision of the judges of customs. When we get so that the farmers and breeders get to be students and breed in line, as they should, and like the old country breeder does, then we will produce a product to meet the demands of the market, but just so long as we are breeding in this hap-hazard way, we want that tariff kept off. The French government keeps track of every superior animal. You go to the head man in the agricultural department in France and inquire for some particular line of stock; they can tell you the locality you can find it in; they can tell you the identical horse you want to get. They have government officials who do nothing else except travel the country and keep tab on horses of all classes. The horses are all graded. If the horse is good enough he receives a revenue from the government—that is, the first grade; the second grade not quite so much revenue; the third grade is only permitted to stand for public service. These best horses the fees can be put down so that all classes would get the benefit of it.

Question: Are those records in shape so that you can get at whether this sire produced a large number of horses that went into the first class, and this one a large number that went into the second class?

Mr. Briggs: Well, I think they are, but I wouldn't be positive about that. If the tax was put on, I don't think it was put on with the idea that they had much better cattle there, but it was put on by a few large breeders in the United States that had a rather large surplus of bulls, and the English were willing to sell their bulls a little cheap at that time. I would say that within the last year there have been two American bred Hereford bulls sold, one for $10,000 and another for $9,000. A bull was sold this last week in Chicago which was a winner at several shows in England last year and was the champion bull in Chicago in December, and he brought only $3.800, so that if you take the auction block to test the values, the American bull is worth about three times as much as the English.

A Member: Mr. President, I want to, at the expense of a little merriment perhaps, ask Professor Shaw, Jr., a question. I know in a general way what legume is, but I have been asked by my neighbors what it meant as a food for stock, and I don't know as I can put it in any other way to get at it; I tried to find it in Webster's dictionary—and I will ask Professor Shaw, if I should write to the agricultural department for 100 pounds of legume seed, what would I get? (Laughter.)

Professor Shaw, Jr.: I had occasion not more than two or three weeks ago to look that same thing up, and I could only find it in the Standard dictionary, and it doesn't give a very satisfactory explanation of the word. By legume, as I used that word this evening, is meant alfalfa, red clover and alsike, and such feed as that.

The Chair: The next meeting of this organization will be held Thursday afternoon. That will be the business meeting of this year, and I shall be pleased to see as many of you present as possible. We thank you for your attendance here tonight.

WEDNESDAY MORNING SESSION.

Meeting called to order at 9:50 a. m., January 14.

The Chairman: Mr. Lovejoy cannot be present this morning, and has sent a letter of regret.

I wrote him for his paper, but have not received it. We will listen to Dr. Reynolds instead.

Dr. Reynolds: The subject which I am to present this morning has a big, long, technical name, but it is the only name it has; I cannot give you the common name of this disease because it has no common name. A new disease has appeared in the state within the past two years, new at least so far as its recognition and diagnosis is concerned. We probably had this disease among the cattle for a good many years, but it has been confused with blackleg; within the past few years it has been distinguished from blackleg and shown to be something entirely different, not susceptible to any good results from toxine; something entirely different. It has appeared in about eighty different outbreaks which have been recognized and the loss has been very heavy. The mortality was 100 per cent during the year 1900; every animal sick or taken sick died, and usually rather suddenly. During 1891 and 1892 the disease seemed to lose in virulence; not so high a percentage died, and there has appeared a chronic type of the disease, but I thought you would be interested in the principal cause of the confusion with blackleg, and that is something in which all cattle men are particularly interested.

HÆMORRHAGIC SEPTICÆMIA.

Whether it is proper to speak of this as a disease or as a collection of diseases due to identical or similar germs may possibly be questioned, but for the present, at least, and until we have more light on the subject, we may speak of it as hæmorrhagic septicæmia. This disease is very interesting on account of several peculiarities. It is interesting because of its protean forms; it is interesting because medical treatment so far as we know is absolutely useless and hopeless. We are utterly helpless in the matter of prevention because we have practically no information as to the method of infection or method of spread. Those who have had a chance to study the various outbreaks in Minnesota have been quite unable to trace any connection between one outbreak and another, or to trace a previous history for any given outbreak. It is proving interesting to those members of the veterinary profession who have been so fortunate or unfortunate as to come into contact with it, because of the extreme difficulty of making ante-mortem diagnoses. In some outbreaks that have been carefully studied, ante-mortem diagnosis for the first case at least was apparently impossible; but on the other hand there has always been plenty of opportunity for examinations post-mortem, and here the evidence is usually clear.

There is a very practical side to this disease, especially when considered from the farmers' standpoint. It appears suddenly and under all sorts of conditions; a number of animals, usually a large proportion, die, and the disease disappears as suddenly as it came. The owner has lost a certain amount of property, in live stock, without a trace of information as to whence the disease came or how soon the visit may be repeated. The owner would be especially interested in knowing the method of infection and the possible agencies through which his herd may receive a reinfection. If hæmorrhagic septicæmia, like glanders, comes by a specially introduced infection, then he has a certain proposition to face. If, on the other hand, the micro-organism of hæmorrhagic septicæmia, which resembles in all laboratory peculiarities the germs of swine plague, are commonly present in less virulent forms or present under conditions where there is but limited opportunity for their development and the production of disease, then the farmer may expect an outbreak of it at any time, and so far as he knows, under any conditions, and he has no means of guarding against it—a quite different proposition.

Etiology.—The specific cause of this disease is apparently a germ bacillus bovisepticus which cannot be distinguished from the bacillus of swine plague by any culture of morpholoqual characteristics. How this micro-organism spreads or how it gains entrance into the animal body is not known, but at present we suppose that the entrance may be effected by inoculation; through the respiratory; or the alimentary mucuous membrane.

History and Development.—The onset is usually sudden and most unexpected, and yet in some recent outbreaks of disease in which the presence of the micro-organism was demonstrated, the onset was quite slow and the cases were distinctly chronic. Hæmorrhagic septicæmia is probably more prevalent than is generally supposed, and it is undoubtedly true that a great many outbreaks of this disease have been incorrectly diagnosed as anthrax, symptomatic anthrax, infectious cebero-spinal meningitis, corn stalks disease, and very possibly as parturient paresis. From reports that have appeared in the veterinary journals at various times it is very evident to those who have had opportunity to study this disease, that outbreaks of hæmorrhagic septicæmia have appeared in a great many different sections of the United States at least, and have been incorrectly diagnosed. Cases which have been described in the East as cerebro-spinal meningitis have been very plainly hæmorrhagic septicæmia, and this is also true of so-called corn stalk disease in the West.

Season and climatic conditions apparently have nothing to do with the prevalence, virulence or disappearance of this disease. The mortality for the past few years during which it has been studied in Minnesota has been extremely high, the cases all ending abruptly in death, with the exception of a few outbreaks where the cases were chronic. These tended to disturb our supposed information concerning the disease, particularly in reference to its rapid and invariable fatality.

More recently an outbreak appeared under the observation of the writer where all cases gave uniformly clear ante-mortem symptoms of cerebro-spinal meningitis, and yet examinations post-mortem revealed, in addition to the expected lesions of cerebro-spinal meningitis, the characteristic mæmorrhages of hæmorrhagic seyticæmia, and the organism which is supposed to be the specific cause of the disease was demonstrated beyond reasonable question.

(See University Experiment Farm outbreak, provisional report by Dr. Wesbrook.)

In this outbreak, as in all the earlier ones, the mortality was very high, nine animals sickened and nine died.

Symptoms.—The writer has had the privilege of studying closely the development and full history of about twelve cases. The temperatures were uniformly normal or subnormal, except in two cases where the temperature rose so rapidly just before death. There was nothing in the nervous disturbances that was especially diagnostic, except that in several cases the skin has been hyper-sensitive. The subjects have usually been disinclined to move about apparently because movement caused pain. In an outbreak which occurred at the University Experimental Farm, and which came under the writer's daily observation, the prominent symptoms in all cases were those of cerebro-spinal meningitis, but it would be very misleading to suggest that these nervous disturbances are characteristic of hæmorrhagic septicæmia. Local lesions which correspond to the tumors of anthrax and symptomatic anthrax are very limited or wanting. The urine in many cases has been scanty or blood stained, and this is also true of the bowel discharges. The examinations post-mortem are very much more definite and satisfactory. The blood is apparently normal. Subcutaneous hæmorrhages are common and vary greatly in size and intensity; in some cases they are large and the hæmorrhatic condition is marked. In other cases the hæmorrhages are punctiform, scattered, and few in number. The hæmorrhages may appear almost anywhere in the subcutaneous tissues, or involve any of the viscera. The spleen is not enlarged, but there may be hæmorrhages on the surface. The hæmorrhages usually have very sharply defined borders and are easily recognized as hæmorrhages. The serous membranes frequently show small hæmorrhagic areas, and the heart, especially the auricles, are often intensely hæmorrhagic.

We may summarize the symptoms as follows: As a rule the disease appears suddenly; the case develops very rapidly and terminates fatally. The ante-mortem symptoms are very unsatisfactory from a diagnostic standpoint. The post-mortem symptoms are definite and as a rule easily recognized and consist of more or less extensive hæmorrhages which are sharply defined when they appear upon the surfaces of the viscera and serous membranes.

HISTORY OF THE DISEASE IN MINNESOTA.

It is now about two years since this disease was recognized in Minnesota by Dr. Wilson of our State Board of Health Bacteriological Laboratory. During these two years there have been reported to the State Board of Health eighty outbreaks among Minnesota cattle; these outbreaks involved fifty-two different farms, appeared in eighteen different counties, and resulted in a loss of 551 cattle.

It is safe to assume that a considerable number of other outbreaks appeared, but were not reported.

Four outbreaks have come under the writer's personal observation, and in three of these the opportunity was unusually good for careful study of the cases from a clinical standpoint.

THE CAFFREY OUTBREAK.

The second outbreak studied by the writer in part with Dr. Wilson, occurred near Cokato. My information came in the following letter:

"Nov. 26, 1900.

"Dr. M. H. Reynolds, St. Anthony Park, Minn.,

"Dear Doctor: Mr. C., living two miles north, lost two cows about three days ago, and a third one is nearly dead now.

"The first cow was apparently well at night, and was found dead in the morning. The next day another cow was taken sick and I was called. The second cow was comatose, unable to rise, and died in about twenty-four hours.

"Symptoms: This cow was lying on her breast with the head turned to one side as in parturient paresis. She was comatose, her respiration stertorous, temperature 101; pulse could not be taken.

"Post-mortem: There was cherry-wine colored serum in the abdominal cavity; the small intestines were very badly inflamed; the liver was slightly swollen, dark and easily torn; the spleen was normal in size and a little darker in color than normal. The cephalic lobes of the lungs were inflamed, the heart had a parboiled appearance, and everything indicated a generalized septicæmia; both lungs were congested.

"These cattle were fed on corn stalks, hay and shorts.

"Yours respectfully,

"H. A. HELA, M. D. C."

In company with Dr. Wilson the writer reached Mr. Caffrey's place on November 29th. We learned that the Caffrey cattle had been kept in pasture as long as the grass was good, and were stabled at night. Later in the season they had been fed on wild hay, corn stalks and shorts, the feed being apparently all fresh and good. The pasture in which the cattle had been during the summer and fall contained both high and low ground with some timber and brush. The owner had noticed in those cases which had died before we reached the place, that the head had been drawn far back in some instances, and in others the head was held in the flank as in parturient paresis, these positions being assumed shortly before death. He had noticed no superficial swellings, but said that the animals seemed to have irregular chills. He also found blood stained areas in all cases on the surface of the bodies after skinning. The sick animals had shown complete loss of appetite from the time they were first noticed ill. There had been no swine disease or chicken cholera in the neighborhood during the past season. The following deaths, 1 to 6 inclusive, were reported to us by the owner:

Death 1.—A six-year-old cow in fair condition had appeared normal in all respects on the evening of November 22d, and was found dead the next morning, the owner not having supposed that the cow was sick. The cow had died in an easy, natural position, as though resting. Evidently there had been no struggle.

Death 2.—Another six-year-old cow was found down on November 22d, early in the morning, seven o'clock. She was unable to rise, held the head in the flank and died on the evening of the 23d. There was persistent constipation. No surface swellings or tumors.

Death 3.—A spring steer calf, in good condition, was first noticed sick on the evening of November 25th. This animal tried repeatedly to rise and failed. Died about 10 a. m., November 26th. Constipation persistent.

Death 4.—This was a four-months-old calf. The owner heard a noise in the stable about 2 a. m. on November 27th. He went out to investigate and found the calf jumping into the manger and shoving the head against the wall. This calf died at 11:00 a. m. with the head drawn far back.

Death 5.—This was a spring calf, supposed to be in perfect health until the morning of November 27th, when it was found almost dead. The animal died a little later. Constipation persistent.

Death 6.—An eight-year-old cow, in good condition, was first noticed sick November 28th at 7:00 a. m., and found dead about 10:30 a. m. She dropped suddenly at 7:30, and subsequently tried repeatedly to rise but could not. She lay on the left side with the head in the flank much of the time. Later the cow succeeded in getting on her feet, but fell suddenly with the posterior limbs spread outward and backward, the body dropping suddenly from a standing position to the ground. Later the cow drew up her limbs and lay over on one side in a rather natural position with the head swung backward. She struggled considerably, but later died easily and slowly.

UNIVERSITY EXPERIMENTAL FARM OUTBREAK.

History.—On June 6th seven cows which had given a normal flow of milk in the morning, gave practically none in the evening. Otherwise the cows were apparently normal.

These cows were all noticed to be slightly ailing the next morning, with the exception of Dell 2. This cow was down and could not be gotten up. The others showed little except dullness. There was no rise of temperature; no evidence of pain or discomfort. When they attempted to walk, the gait was more or less irregular, resembling very much the gait of milk fever in its early stage. This became true of all cases sooner or later, and was of course more marked in some than in others.

There had been nothing new or unusual in the care or feed or other environments of these cattle except that for a few days and nights they had been kept in a pasture which had received some sewage overflow from our falter beds, by reason of recent rains. A salt box was located near the point where this overflow stood and the cattle unquestionably drank of this water. No other cattle had been in the pasture for ten days.

Symptoms, First Period.—The symptoms during the first twenty-four to thirty-six hours were not marked except as to continual dullness, staggering gait and cold extremities. The skin was harsh and lacking of sensation. This loss of skin sensation began at the posterior extremities and gradually extended forward. The milk flow was completely checked, or practically so in all cases.

Second Period.—After twenty-four to thirty-six hours, diarrhea appeared, the discharge being dark and thin with very disagreeable odor. The breath in some cases was noticed to be offensive. Nervous symptoms gradually developed and were very uniform in all cases.

The symptoms during the second period were those which belong to a gradually developing nervous disturbance and were very typical of cerebrospinal meningitis. The inability to walk naturally was continued, the gait being irregular and weak. The neck was unusually bent to one side and the muscles, particularly of the face and neck, were spasmodically contracted. During this period the animals, with the exception of Countess, a large Holstein cow, were still quiet, moving around very little; but the eyes showed a wild, unnatural expresssion. The skin continued to lose sensation progressively forward. Countess was continually groaning or rather grunting with each respiration; but not in evident pain. During this second period the animals commenced to chew in a nervous and very persistent manner, with more or less profuse flow of saliva. It is also to be noted that the temperatures remained normal or subnormal during this period.

Third Period.—This was one of intense activity. The eyes continued to grow more wild and unnatural; the grinding of the jaws more active and more constant; the convulsions of face and neck muscles became more intense and then gradually a period of intense restlessness and activity, and death ended the scene in every case.

Post-Mortem Symptoms.—Several of these animals were examined, and the symptoms as seen on examination post-mortem were fairly uniform.

Meningitis involving the spinal cord or brain or both these organs was invariably present. In addition to this there were hæmorrhages involving the subcutaneous tissues, and lymphatic glands in various portions of the body; also the pleuræ, pericardium, and surface of various internal organs, particularly the lungs and auricles of the heart.

Evidently we had an undoubted meningitis; not the specific form of the disease, but one probably due to another germ. The lessons seen on post-mortem are very suggestive of a hæmorrhage septicæmia infection.

CASE NOTES.

Iris.—June 8th, 3 to 5 p. m. she was slightly stupid, in standing position, apparently strong and breathing easily. This cow drank naturally and did not show anything unusual except a slight listlessness. Died at 6:15 p. m. This death was very unexpected until within a few minutes before it occurred.

Vye.—June 8th, 11 a. m., quiet, apparently comfortable. Could walk fairly well, not supposed to be in any serious danger. This cow had a slight convulsion at 9 a. m.

1 to 3 p. m., quiet and lying in a comfortable position, died very suddenly.

Countess.—June 8th, 11 a. m. Respiration stertorous, recumbent most of the time, but could walk.

2:30 p. m., pupil of right eye contracted, left eye dilated.

3 to 5 p. m. This cow was down most of the time, respiration stertorous. Could walk, but the gait was quite irregular.

June 9th, 9 a. m. Cow had died during the night and was found out doors, having in some way forced her way through or under a very heavy sliding door. Evidently there had been intense activity before death.

Euroma.—This was a Jersey cow, giving normally at this time about fourteen pounds of milk, testing five to six per cent butter fat. She gave on the evening of June 6th, 5.1 pounds of milk, testing 6.2 per cent; on the morning of the 7th, 2.1 pounds of milk, 5.2 per cent butter fat. On the morning of the 7th the head was carried to the left; the left ear was more upright than the other and held back in a peculiar position, and the animal seemed stupid.

June 8th, 9 p. m. Patient was standing grating her teeth and showing very marked spasms of the cervical muscles. The head was turned around to the right and a portion of the right ear cold.

She was seen during the interval, but supposed to be quiet and easy from what was learned of the attendant.

At 9:05 p. m. this cow was found back of the spray pump in the runway, very stupid, weak and with poor circulation. She was in standing position and grating her teeth. Spasms of the cervical muscles were marked. This cow was apparently in a very serious condition.

At 10 p. m. there was great nervous excitement, the patient tearing around in a large room with short intervals of comparative quiet. Chewing motion, discharge of frothy saliva and convulsions of the superficial muscles and death.

COMMENTS ON CASE NOTES.

A survey of the foregoing case notes brings to light several interesting points. In the first place it will be noted that the temperatures were normal or subnormal rather than high, until a very short time before death, when the temperature rose very rapidly, notably in the case of Euroma. The evidence on this point is not altogether satisfactory, for in so many of the cases circumstances were such that temperature could not well be taken during the last hour or so. In the Caffrey cases, where it was possible to follow the cases entirely through its course from the onset until the fatal termination, the temperatures were normal or subnormal throughout.

In the outbreak which occurred among cattle at the University Experiment Farm the disturbances of the nervous system were particularly marked, so much so that the diagnosis based on both ante and post mortem symptoms was unanimously considered to be a cerebro-spinal meningitis.

Several of these cases at certain stages very closely resembled typical cases of parturient paresis. (See letter from Dr. Hela under "Caffrey Outbreak.") It should perhaps be noted that we had one cow taken sick with all the clinical symptoms of this latter disease, the symptoms appearing about thirty-six hours after parturition. (See "A Supposed Milk Fever Case.")

A peculiar fact which appeared in connection with our University Farm cases was noticed by the attendants, and every one who saw the case, viz.: that the animals nearly all died in what they called the "inverse ratio," i. e., the cases which were apparently most seriously sick early in their histories were the cases which lived the longest, whereas the apparently milder cases died very quickly and very unexpectedly. Those cases which were apparently most seriously sick were the ones which lived until the last ones of the outbreak. The Vye cow is an instance in point. If the brief convulsion on the morning of June 8th had not been seen, this cow would not ordinarily have been considered sick at all beyond a very slight diarrhœa.

Iris was standing in the yard drinking, switching flies, showing nothing whatever apparently wrong with her except slight listlessness as seen in the accompanying photograph, and yet she died very suddenly and unexpectedly, without developing serious symptoms until a very short time before death.

In none of these cases witnessed by the writer has there been a rise of temperature, nor any tenderness on pressure over the spinal column more than elsewhere over the body, but quite a number have shown a hypersensitive condition of the skin in general. None of the cases seen by the writer presented unnatural heat at the base of the horns or throat paralysis. It will be seen that although the State Farm outbreak was unquestionably a cerebro-spinal meningitis as proven by ante-mortem and post-mortem symptoms, yet it differed in very many particulars from cerebro-spinal meningitis as it appears in the human family.

DIAGNOSIS.

It is very important to distinguish between blackleg and hæmorrhagic septicæmia, because so far as our present knowledge extends, we are absolutely helpless in the presence of hæmorrhagic septicæmia. We know almost nothing concerning the method of its spread, method of infection, and we have no vaccine either preventive or curative, and no medicinal treatment; whereas blackleg can be easily and cheaply prevented by vaccination. The diagnosis must depend upon the history and what can be learned of the ante-mortem symptoms and the results of examinations post-mortem.

Differential Diagnosis.—So far as the facts occur to the writer at present, the differential diagnosis comes between hæmorrhagic septicæmia, blackleg, true anthrax, and possibly corn stalk disease, if there is a disease which is any longer entitled to this name. Anthrax has been so very rare in Minnesota during the past ten years that I will leave it out of the discussion in order to simplify. There is developing a grave question as to whether there is such a disease as corn stalk disease. This narrows the differential diagnosis down to blackleg and cerebro-spinal under discussion.

In my discussion of the distinction between blackleg and hæmorrhagic septicæmia I will have nothing to say concerning laboratory work, because very few stockmen in the event of an outbreak of hæmorrhagic septicæmia or blackleg have access to bacterological laboratories. I do not wish to give the inference that I underestimate the importance of laboratory work. On the contrary, a diagnosis in the bacteriological laboratory may be positive, accurate, and in some cases the only means of making an accurate diagnosis.

The ante-mortem differential diagnosis, exclusive of laboratory findings between hæmorrhagic septicæmia and blackleg must evidently be based upon the history of the cases, ages of the animals affected, temperature records as shown by fever thermometers and local superficial swellings, and the appearance of the examination of blood taken from the tumor in case such lesion is present.

In both diseases death is liable to occur very suddenly, but blackleg commonly affects only cattle under two years of age, whereas hæmorrhagic septicæmia affects all ages indiscriminately. High temperatures are characteristic of blackleg, especially early in the history of the cases, whereas, in hæmorrhagic septicæmia the temperature in my experience has been normal or sub-normal until death, and then in some cases rising very rapidly. A pronounced swelling of the front or hind quarter is rather characteristic of blackleg, though in a few cases which died very suddenly there may be no noticeable swelling. These cases usually occur early in the history of the outbreak, and following them there are almost invariably other cases which show the characteristic swellings of black quarter, as it is frequently called. Swellings of this kind are characteristic of hæmorrhagic septicæmia, and when present at all are small.

Blood taken from a blackleg tumor is dark, frothy and with disagreeable odor, whereas the blood taken from a case of hæmorrhagic septicæmia, even from the small swellings which sometimes occur, is apparently normal. It reddens on exposure to air, clots readily and does not seem to be changed. It should be noted that this is also true of blood taken from general circulation in the cases of blackleg. But the important point of difference is the character of the blood taken from the swelling in a blackleg case, which blood is very abnormal.

There is another point which has some bearing in distinguishing these two diseases. Hæmorrhagic septicæmia occurs at any season of the year, whereas blackleg is most apt to occur in the summer and fall.

A diagnosis between these two diseases may, as a rule, be quite easily made by examination on post-mortem. Here we have in a case of hæmorrhagic septicæmia the characteristic hæmorrhages which appear as blood-stained or bruised-like areas under the skin; sharply defined blood-stained on the internal organs or the lining membranes of the chest and abdomen. These hæmorrhages are not at all characteristic of blackleg. On skinning animals affected with blackleg the crepitating, gas-filled tumors of blackleg are characteristic of that disease, and so far as we know are not found in hæmorrhagic septicæmia.

BLACKLEG VACCINATION.

There are various brands of vaccine on the market, and several of them put up by reliable firms. The one with which the writer is most familiar, however, is knows as the Bureau vaccine, prepared by the Government Bureau of Animal Industry, and distributed gratis. This is a brownish powder, put up in small packages of two sizes, some of them containing twenty-five doses and others ten.

In order to vaccinate the young cattle with satisfaction it is necessary to have a suitable outfit, which can be purchased through any wholesale drug and instrument firm. One made according to specifications of the Bureau of Animal Industry is now put on the market by Z. D. Gilman of 627 Pennsylvania Avenue N. W., Washington, D. C. This outfit sells for $4. The Pastuer Vaccine Company's outfit is sold by Noyes Bros. & Cutler, St. Paul.

Without going into the minute details of vaccination I may explain that the powder is moistened with a little water, then more water is added; the whole is filtered and the liquid passing through the filter constitutes the vaccine which is injected by a hypodermic syringe. Injection is usually made on the side of the head or back of the shoulder, through a skin area which has previously been disinfected. Complete directions are furnished by the government with the Bureau vaccine.

I may say that Minnesota stockmen who wish to use the government vaccine may obtain it by addressing the Veterinary Division of the University of Minnesota, Agricultural Experiment Station, St. Anthony Park.

Treatment of hæmorrhagic septicæmia deserves no discussion, for so far as our present information concerning the disease extends it is a waste of time and medicine, although it is true that the two animals, Alzanka and Dell (University Experiment Farm outbreaks) received full doses of nerve sedatives, and lived very much longer than other cases, but terminated in death just the same.

GENERAL CONCLUSION.

For the present at least we must consider the term "hæmorrhagic septicæmia" as quite inclusive, a sort of generic name which must cover a multitude of widely varying types of disease, but perhaps in all of which the specific micro-organism B. bovisepticus is found, and, so far as our present information is concerned, we are apparently justified in considering this germ as the specific cause of the widely varying types. It is also safe to assume that it is not by any means a new disease, the only new features about it being probably its definite diagnosis by Dr. Wilson of the laboratory of the Minnesota State Board of Health. Very many outbreaks of this disease have unquestionably been diagnosed as corn stalk disease, blackleg, and anthrax. Those of us who have been so fortunate, or unfortunate perhaps, as to have had personal experience with the disease in Minnesota have had occasion to smile at the clearly described typical of hæmorrhagic septicæmia appearing in our veterinary journals under other names. (Applause.)

The Chairman: We will now hear from Professor Shaw of Michigan.

Mr. Chairman, Ladies and Gentlemen: Those of you who were present last evening, I want to go back and make some reference to some western conditions because of the fact that I believe they are going to affect us very materially in the work of meat production. For some years past western competition has not affected the eastern meat producers, because of the fact that the product of the great ranges has come to the great markets of the East during some three or four months of the year, through the latter part of the summer and the early part of the autumn, but those conditions are now changing to such an extent that those animals are going—the product of that portion of the country is going to come to us the entire portion of the year, instead of those few months that have been specified. That means there is going to be a steady income to our markets from this source; it means also that so far as the feeder proposition is concerned there are going to be some changes there. I believe that the State of Minnesota relies to some extent upon the West for feeder stocks. I don't know to what extent. I believe we do for steers and for lambs to a certain extent. Now, I know this is the case down in Michigan. At our agricultural college we are handling lambs from Montana, wethers from Wyoming, steers from Wyoming and angora goats from Texas and New Mexico; in fact our feeders are strictly Western stocks. We find in looking over that state that our farmers are handling Western stocks. The reason why I want to refer to this matter is this, that I believe that we cannot rely upon the West for feeder stocks. Now, our people down in Michigan use this argument that they prefer to feed the Western stocks for certain reasons. That is true of sheep in particular, because of the fact that they are more free from certain parasitic troubles, such as stomach worms and tape worms, which is a very serious drawback with the native lambs; the reason why I believe it is so is because of the fact that the West is becoming a farming country; they can produce the coarse food; they can produce the grains also, while ours cannot do it. They raise twenty-five or thirty bushels of grains to the acre without irrigation, and with irrigation we average fifty-five bushels for barley, seventy-two for oats, thirty-seven for hard wheat and forty-four for soft wheat. I am in the course of my speech going to give you some figures and I wish you to hold me responsible for them because of the fact that they are figures which I have secured in the various lines of work we have been carrying. You may have noticed perhaps that there is great conflict in the figures which have been produced by experimenters along live stock lines. In a number of tests that have been made, not in small numbers, but in carload lots in each instance, we have found the cost of everything under these conditions was as follows: In the case of nine tests, where car lots were used, the cost of production of beef under these conditions, the average cost was $5.16 per hundred weight; the minimum cost was $4; in the case of seven trials in the production of mutton the average cost was $3.77 per hundred pounds, with a minimum of $3.22 under the same conditions; in swine production we found that we could make one hundred pounds of pork at an average cost not exceeding $3.25, with a minumum of $2.85. Now, I quote these figures simply because of the fact that I have been very firmly impressed with this feeling that we have got to pay more attention in the future to the question of economy in the production of meats, because of this competition. Now, this leads to some questions bearing, it seems to me, upon the improvements of our stock because of the fact that these stocks in the future are not going to be available to the eastern feeder and then he must necessarily breed them and more attention must be given to the work of breeding and for a number of reasons. If, for instance, we should go down to the Chicago stock yards and watch during certain portions of the autumn, in particular the native stocks coming into that market to be sent out again as feeder stuff it would surprise us all. In the case of two of the states which are now included in the corn belt, we find, with the quality of feeders that are coming to the large markets from these states, that it is surprising; the fact we can find any individual animals with the combinations of frame and color of the bovine species. We can find in carload and trainload lots a lack of uniformity which is remarkable. This is due to the fact that there has been an indiscriminate mixing up of blood, the type has not been preserved. There has been a fluctuation in the work of breeding. For instance the fluctuations in the price of dairy products, or in the price of beef, and the efforts that have been used have been in vain and the dairy suffers. Because of that condition of affairs I made the statement at the live stock breeders' association at Detroit that the quality of the live stock in the State of Michigan from a beef standard was not up to that of some fifteen years ago. Well, our breeders didn't like that; I believe it is nevertheless true. That, of course, is not true if we include the breeders, but take it from the standard of the average farmer I believe that is true. I may also say that some of these feeders that we watched with so much interest through seven to ten days at the Chicago stock yards came from the state of Minnesota; some of these feeders, with such a variety of breeding and mixtures as regards type. Because of the indiscriminate breeding and the mixture as regards blood and type I find that the work of improving is going to be difficult. It is not possible and it would not be a practicable method for the average feeder, for instance, to purchase both pedigree animals, both males and females, because of the fact that it requires a good deal of capital to do this and the only practicable method for improving our herds, that is from the standard of the average farmer, is through the process of up grading. Well, then, take, for instance, the difficulties we have to work with in that up-grading work. What have we? We have a composite foundation; we have a mixture, and because of that it is going to be very difficult in this up-grading work to get definite results. As regards this question of breeding there is something that I want to say in particular. For instance, a statement was made by a representative of one of the packing houses not very long ago at the Live Stock Breeders' Association meeting and backed up apparently by figures which had been secured from the cutters' room. This left an impression on the minds of those present that as large a percentage of available cuts was found in the case of a scrub animal as in the case of a beef animal, and as the figures had apparently been secured from reliable sources it was a pretty difficult matter to deal with the argument which was presented. In the work which we have been carrying on a number of grades have been used for various purposes and we have never been able to secure the same results from animals of inferior quality as those of first-class quality from the standard of the beef type. Take these two cases, take the feed animal for instance with the short, tapering, broad head, you would expect to find behind that a short, tapering neck blending with the shoulder, broad back and a long, deep full quartering chest, wide, deep and capacious; on the other hand we take another type, we take that long, narrow head, with a long, slim neck and somewhat narrow chest, flat ribs and a thin quarter set up on long legs. As a rule we will find that kind of an animal carrying only a moderate amount of flesh, moderate or small, if you like; take the other type, you usually find it will grow a greater percentage of flesh. Take those two animals and feed them side by side or not, but take them and feed them side by side and we have in the one case an animal more near the finished condition than the other case, and because of that fact we could naturally expect in the case of the thin animal to find him making a spurt, producing just as good a result, taking the more emaciated thin built steer, and we very frequently find we make rapid gains, but on the other hand we have the low cost of production. Now, because of some of these facts, because of some of these recent investigations, attempts have been made to dispute this fact that the difference in type does not make as much difference in the result from feeding as was originally supposed. The great trouble in nearly all of the best work that has been done with live stock is due to the fact that there is so much difference in the individuality of the animals, and because of this difference in the individual it is not possible to get results that are reliable. We have during the past autumn been working on this question of individuality and have secured some very striking results from the feeder's standpoint. We have not been able, therefore, to get as proportionately great gain from the steer, that is the feed type, as from the well bred steer, nor as cheap, and again, notwithstanding all the facts that have been produced to show up the other side of the question. Those, of course, who have taken the ground that the scrub steer will make as great a gain and as cheap a gain as the steer of the beef type, of course, do not hold to the argument as regards the matter of quality, where the great difference lies, but the doctrine, it seems to me is a dangerous one, and one that we should face, the conditions are such as would justify a great deal more careful work along these lines before arriving at conclusions. The difference, however, in the production of the two classes is not as great as was first supposed. I want to call attention in particular to some feeders, of the breeding question, not only relating to beef animals, but to the sheep and swine as well. I want to try to emphasize the fact that this matter of grade improvement, that it is a matter you will have to pay much more attention to in the breeding of stocks that will be fed on the farms. In regard to the sheep, those of you who had the privilege of listening to Mr. McKerrow yesterday afternoon were favored with his idea of what the farmer's sheep should be. That is, he gave an accurate description of the type of sheep which should be used on the farm. We have been making some investigations with regard to the different types and to the matter of mutton production, because of the fact that so many eastern feeders are handling western lambs. We would not naturally expect, of course, that as good results could be secured from these western types as from types built up from a mutton standpoint; some work was carried out for that purpose. The reasons that led up to it are as follows: It was found that some of the mutton types would not answer under range conditions, for certain reasons, and that a certain type of sheep will have to be bred for that particular purpose. Now, this particular type of sheep suited to these range conditions may be considered as the general purpose sheep. They are perhaps not producers of as large a quantity of fine wool in proportion to the live weight as some of the fine wool merinos, and at the same time possess more size, more strength of bone, and better carcasses from the mutton standpoint. Some of the work that was done along these lines gives results which show that the difference from the feeders' standpoint was not as great in the case of these two as was supposed. For instance, take, if you will, that type suited to the range which comes to the hands of our feeders, take, if you will, those merino grades without wrinkles. I don't know of any other way that I could describe it than that. Take the merino grades without wrinkles. those were fed against some of the Shropshires. In one case it required 9.07 pounds of food to make a pound of gain in case of these fine wool grades. In case of the purely mutton type we found they produce a pound of increase in live weight to 8.14 pounds of food. You see there is no very marked difference. As regards the actual cost of production, they were as follows: As 4.39 per hundred weight is to 4.69. In the case of the strictly mutton type 4.39 per hundred, in the case of the other type 4.69. I want to call your attention to the fact for a purpose. That purpose is this: That under certain conditions, for instance, because of peculiarities, of climatic condition and because of the peculiarities of style, in some cases animals of greater hardihood are required. In some of these western types that are giving such good results under these conditions I believe that we have very useful animals, hardy and capable of withstanding severe climatic conditions a great deal better, and the fleece will stand the rain and storm; the rain and storm falls on the outside and the sheep shakes itself and the snow and rain goes off. Now, we have two extremes and a medium. For instance, we have on the one hand certain types with a very open fleece and the storm goes right in. We have on the other hand certain types where the storm, for instance, will penetrate the fleece and then cause a sore back, and then comes the closer fleece, where it is difficult to remove that through evaporation. You notice we have three different types to select from according to climatic conditions, and on the other hand we have that open fleece type that dries very quickly because of the open fleece; the reason why the Cotswold, for instance, and the Lincoln, give such remarkable results is on account of its excellent qualities, and their use in Washington and Oregon, it is simply due to that one fact. I also wish to call your attention to some facts that have been impressed on my mind from the standpoint of the pork producers; it seems, perhaps, like attempting to cover a great deal of ground, but in these matters it seems to me to be a question that affects the economy question in the production to a remarkable degree.

There are some types of swine that have been used for feeding purposes that have not been as profitable as one could desire. There are, of course, some great extremes in the swine breeding and in the practical production. So far as some of these extremes are concerned, we will not consider them, but the type of pig for the farmer is one possessed of considerable length, fair width of body and depth, strong bone, well placed limbs and neat head. We want two things, we want greater prolificacy than we found in some of the large types and we want better motherhood than is found in some of them. When we come to the extreme large type we find there is a growing tendency to lack of prolificacy and some of those types are apt to have a delicacy of constitution and conditions that are not good for the most economic process in the process of the production of meat. We desire to call your attention to some facts that affect the production of meat from the feeders' standpoint. There are a great many practices that, of course, are based upon long usage and that have produced good results. I wish to emphasize this one fact of which we made mention last night. One of the great features it seems to me in the question of economy of meat production relates to the endeavor to grow as large an amount of food as possible upon a given area. This will mean something we have not mentioned heretofore; it will mean a variety. It will mean we will have just as much hay and just as much grain to use for other purposes as heretofore. Now we come to the question of variety. There is no feature that is of greater importance than that; it is as strictly an improvement when it comes to the quality of the ration. I believe we should not attempt to follow standard rations, in favor of rations that are favorite in any particular locality, because it is not possible to formulate those and use them, but endeavors should be rather to make such combinations as is possible with the food we happen to have on hand, in order to dispose of them in the most economical way. That brings us to the question of variety in meat production. Now, it means two things, it means we can feed a greater variety of live stock; for instance, with certain foods in some cases we will find that the pig will convert that into available property more economically than any other class. In other cases it may be the cow, and in others again these products must be utilized by the horse. Now, because of this fact we can keep a larger variety. There is another thing, too, and that is that common results can be secured from the feeding. Where we are we have produced on a farm a variety of produce. There are two points I want to call your attention to in particular from a feeder's standpoint, one is variety and the other is change. That matter was discussed at a recent live stock meeting in Michigan. One farmer got on his feet in the audience and told us that he liked to change the feed. His stock wanted variety. Now, there are the two words, change and variety. Variety is all right, but it must be continuous. I was enabled to secure some figures just a few days ago relating to this. We have been trying to do some test work with steers along this line. Before dividing these wild steers up we made a division according to breed type as they appeared to the eye; not being satisfied with that we wanted to go on and make the test. We placed those animals under like conditions for the test; the foods were of the same conditions as nearly as possible, exactly the same; and they fed on that test for five weeks in order to determine something in regard to the individuality of these steers before dividing them up into lots to undertake the feeding work. The results secured were as follows: After we got through with this test we wanted to use about three weeks as a preliminary feeding period to get those steers on to the feed before going on to the trial proper. What was the result? In this period that intervened there, twenty-one days, now in the trial test, a small amount of clover hay and some corn and cotton seed meal, those were used without a change of food. When we got through with that trial test and got down to the tests in which solid corn and clover and grain were used we found this: that during the twenty-one days the steers in the case in which the least change was made in the ration gained forty-two pounds in that period and the range of steers in which the most radical change was made gained but nineteen pounds during that period. I have always had my suspicions that they would not do so well where a radical change was made in the food, but I have never been able to secure figures before; so that while variety is a good thing, I believe that it should be continuous, and radical changes should not be made. There is another thing I want to call your attention to, the matter was discussed yesterday afternoon, and that is the necessity for water supply. There is a great difference of opinion as regards the necessity for constant water supply for sheep. We have always been ready to admit that the fattened steer, dairy cows in particular and the horse must have access to a plentiful supply of water, but we still find people who believe it is possible for a sheep to get along with snow in the winter season; and we find that there are others again who believe they can get along with very restrictive quantities of water during the summer season. Now, if we should take 100 sheep breeders, put this question to them, "Can you tell us how much water a fattening lamb requires during the feeding period?" I doubt very much if we could get one specific answer from one of the 100. Three years ago we took two bunches of lambs, the foods were exactly alike, they consisted of clover and certain grains, and the only conditions that were different were those which related to the water supply. In one case the lambs were turned to water but once a day, sometimes they would all drink, sometimes some of them would and others would not, according to the condition they happened to be in, I suppose, at the time. In the other case the other bunch of lambs had constant access to water which ran through the lower portion of the yard and which was kept perfectly clean. The result was this: that when it came to the monthly increase of the live weight from these lambs those that had constant access to water gained very nearly two pounds per head per month more than those that had restricted water supply. Because of that falling off in the gain we find that the cost of production was proportionately higher and the cost of production per hundred pounds of increase from those sheep with the restricted water supply was greater than in the case of those that had constant access to it. Some of our boys at Michigan have been working for me this winter on this question of water supply to find out just about what was required. With eighty-pound lambs that were receiving a grain ration consisting of two pounds, the balance of the ration a little over one pound of hay and a very small quantity of roots, those lambs have been consuming through the last sixty-five days an average of from three to five pounds of water per head per day, and that, remember, in addition to the fact that they are getting a small quantity of root. Our attention was called to this in a very striking manner in the case of the beef cattle. The case of some steers that they divided up for feeding, the conditions were precisely the same as regards housing, as regards temperature and as regards food conditions, but there was a water tank one side of an open yard where one lot could slip up and get water and the others were watered twice each day, and we found something was wrong because of the results secured; it was due to the fact that this one bunch took a drink at will, while those others were restricted to twice each day.

As regards some of the factors that influence to a marked degree the matter of pork production, there are some things I desire to call attention to; you can accept the data I am to give you as three consecutive seasons were spent in working on the question to give some specific data with regard to the influence of succulent foods upon the digestion of other food factors, and its influence in feeding work. Certain results were secured. Not more than three months ago, not longer ago than three months, some other results have been secured from a western institution. These results flatly contradict results of the work of the three years I have referred to. I have had the impression that there is nothing that will produce a pound of pork more cheaply than corn. I believe that we will have to get away from that idea because of the fact that we can make a combination of succulent food with the corn, if you like, that will produce a pound of meat more cheaply than the corn alone would. We had no corn to work with, we used barley, and oats and wheat, and the results were as follows: The results of the three years' work, the average results might be summed up, for instance, in these figures: Where grain alone was used 5.34 pounds of food were required to produce a pound of gain. Where grain in connection with some very succulent food was used then but 4.26 pounds were required. Now, the amount of succulent food used and the value of the same was not such as to raise the total cost up to that of the cost involved in the case of the grain feeding. The result is that we have great faith in roots, to use for forage crops, as much as possible in constant succession, and some kind of forage from the opening up of the spring until late in the autumn. This, of course, will depend a great deal on the style or climatic conditions. In Montana we had an excellent condition of forage crops. We made rye and then grain mixtures and in the meantime the clover came along and then we cut off with a smaller amount. The result of that was that we found in general that it is not a good thing to permit pigs, particularly young animals, to rely on forage crops solely for a maintenance ration. A fattening ration cannot possibly be secured from it, but that along with that profitable results will be secured providing the one-third grain ration is supplied. Take this case, for instance: Alfalfa or clover pasture growing pigs running upon that field and consuming a certain proportion of their food every day. For instance, these pigs, it would have to be a large pig, or we will say the cost of six pounds of grain would be required in forage, and then take that animal and place him under these forage conditions and use one-third or one-half grain ration along with that, according to the condition and the age of the animal and the purpose for which it is being grown. In that way a great saving in the cost of production can be effected, the results we have secured from the use of root feeding in the case of swine production have been very satisfactory indeed. We grow the carrot and mangel and sugar beet altogether and those, of course, grown according to the conditions. Now, I am apt to spread myself out over a good deal of space, but there are so many things that affect the matter of economy in production that it would require a great deal of time even to touch upon a few of them. There are just one or two things more that I want to speak about and that is this: I believe sufficient attention is not given to the matter of keeping animals producing. That is, in the case of breeding animals, keep them breeding. In the case of meat producers, keep them producing meat. Sometimes the average animal is producing meat and sometimes he is losing. Now, in the case of milk producers, keep them producing milk. There are too many non-producers found on our farms. These are found in the case of cows running idle at the time when they should be producing calves or leaving the produce on the farms at times when they should be producing milk. The same is true of all other classes of animals. One of the non-producers that is a pretty expensive factor to the farmer during the winter season is the horse. We admire the extent to which the average farmer prides himself in his horse flesh which he possesses and the care that he gives to it, but very often the best field of hay that is produced on the farm in the summer season and the best bin of oats is set aside for the working horse for the winter season at a time when he is a non-producer. Now, under those conditions, that food, for instance, should be utilized for some other purpose and cheaper rations supplied. There is one other factor that I want to call attention to as regards the economic meat production, and that is the necessity for utilizing young animals in the meat producing processes. With certain changes the sheep subject will apply to all other animals; as regards the amount of foods required by different kinds of sheep, we find that a lamb of about seventy-five or eighty pounds requires about three pounds of solid food, dry matter is required per day, and we can use two parts of grain and one part of ration forage, or one of ration forage to two parts of grain, according to the nature of it and to whether it is carbonaceous or nitrogenous in nature. We find in the case of a yearling that where that three pounds of food was required for the lamb, in the case of a yearling wether we found 4.45 pounds were required, and in the case of a two-year-old 4.75 pounds of food daily, and when you come to the aged ewe you have the other class. When we come to the relative results from these four classes of animals we will not put those figures before you in the form of gains per head per day or in the form of gains per month, because that does not present anything. We will present that to you in the form of percentage of increase in live weight that was as follows: From the lambs 37.7 per cent, which was annually added to the original weight. In the case of the yearlings, 24.7 per cent; in the case of the two-year-olds, 20.9 per cent, and in the case of the aged ewes, 17 per cent. The food condition and everything else was the same. Then when it came to the matter of shipping over some 1,400 miles of road we found that the shrinkage in the case of the lambs was about 7½ per cent, and in the case of the aged ewes it would be about 11 per cent. Then when it came to the matter of marketing we found the following relation existing in the prices: In the case of lambs, for instance, they sold for $6.50 per hundred weight; in the case of the yearlings, $5.85; in the case of the two-year-olds, $4.45; in the case of aged ewes, $4.75. The cost of production had been for the lambs, $4.18 per hundred weight; for the yearlings, $5.83; for the two-year-olds, $5.90; for the aged ewes, $6.78. It will be noticed that is a large increase of the cost of production. In the case of the younger animals the percentage of reduction in dressed carcasses that had been on the racks for twenty-four hours, was 54.12 per cent, from the aged ewes, 50 per cent. The relative net profits per head from these were as follows: In the case of lambs, $1.75 per head; from yearlings, $1.42; from two-year-olds, $1.57; from the aged ewes, $1.08 per head.

I am sorry that I have taken up so much time. There are two little features that to me are of a great deal of interest. I don't want to leave the impression that I have been attempting to advocate any particular methods, because I believe that the individual must necessarily study out his own conditions, and must necessarily use those methods that are best suited to his conditions. If I have done nothing more than this to get us thinking with regard to improvement and the necessity for study of the economic meat production, I shall be very glad. (Applause.)

Dr. Curryer: I don't believe we shall ever get too old to learn; I notice that Mr. Briggs spoke of the quality in horses and Professor Shaw of the quality of feeding animals and it is evident that he has given this subject very close attention and we all realize that from what he has said to us. Now, I would like to know if he will give us the indications of quality that we may know when we see quality and one that is not. Make it as plain as you can.

Professor Shaw: Now, I am able to make an attempt at explaining that from a cow standard, but not from a horse standard. The cow I consider a feeding animal and also the hog. I believe there is a great deal of difference in the application of these two terms, there is quite a difference in the application of the term quality to a horse and as applied to the cow. Now, as I understand the term quality in this application to cattle, I shall state first what I look for in quality. I use the term slightly different to that, too, I use the term handling qualities, and first I notice the condition of the hide, whether it is a thick hide or a thin, the condition of the hair, whether soft and silky or whether it is hard and gritty. Now, another thing we notice also will be something with regard to the covering of the form of the animal, if you like, but first, to explain some of the reasons why. We make an examination of the skin and the hair and from the standpoint of quality, the way I understand it is as follows: With those parts which are the most remote from the center of circulation, the circulation having much to do with the nutrition of the animal, because upon the vigor and perfection of the circulation will depend the condition of these parts. As a result, if you find a thick, coarse, tight hide you will find the indications of a lack of quality, or, in other words, if the hide is thick and coarse and tight, we combine those words, if we have a thick, heavy, coarse hide on a steer, that will be a lack of refinement. We will find undue coarseness; this will undoubtedly cure itself, because of that law of co-relation which will not only relate to some of the functions of the animal, but it will also tell something in regard to the quality of the meat. If we find, for instance, a coarse hide,, a coarse, tight, heavy, thick hide, we will be almost sure to find a coarse animal, a coarse bone and coarseness in the texture of the meat and very likely we will not find a combination of fat and lean that is desirable; we will also find, if we have the means to test it, that the quality in the meat would be lacking, not only as regards its texture but also as regards the other requirements of quality. Now then, on the other hand, if we find a thin, paper hide we would be almost sure to find undue refinement, lack of constitution, and as a result we would know, following out the history of an animal of that kind, we would probably at some time find impaired nutrition. I don't know whether I have shown it or not.

Dr. Curryer: I am very much obliged, because it is a new method of looking at things as they exist; what one man would say was quality another would not. I notice every breeder and every salesman talks about the quality of the stock, and I want to understand what they mean if they are talking of the beef line, and I want to know what it is; you have made it in the handling line.

The President: This has been, certainly, a very interesting meeting and we have had a great deal of instruction from Professor Shaw and Dr. Reynolds, and we will now permit the photographer to take a picture of the members of the convention and then we will adjourn to meet promptly this afternoon at two o'clock.

Convention adjourns.

WEDNESDAY AFTERNOON SESSION.

Jan. 14, 1903, 2 o'clock p. m.

Dean Liggett presiding.

Dean Liggett: Ladies and Gentlemen—First, I wish the gentlemen in the rear of the hall would come up and take these front seats; then you will have no difficulty about hearing, and at the same time it will make a very much better looking audience.

The hour has arrived for the opening of our exercises, and it is my pleasure to present to you as the first speaker Professor Green, the horticulturist of the agricultural experiment station. He has a very delightful subject to talk about this afternoon, as his subject is "Progress in Horticulture." Doubtless you are all familiar with the remarkable progress in this industry in the last ten years. I take pleasure in introducing to you Professor Green. (Applause.)

PROGRESS IN HORTICULTURE.

BY PROF. S. B. GREEN.

Mr. President, Ladies and Gentlemen: About fifteen years ago the national government made appropriations of money for each of the several states and territories for the agricultural colleges and for the experiment stations. This put the agricultural colleges onto a better basis than they had been heretofore. and resulted in a most wonderful stimulus to agricultural education in colleges and to the work of experiment stations. As a result of that movement we have seen most wonderful improvement in the lines of agricultural education, in the lines of agricultural experimentation, and especially in the literature which is served up to the horticulturists and farmers of this country in our agricultural papers. Previous to that time, much of the literature in our agricultural papers was rambling and empyrical. Since that time, and becoming more so as the years go by, the information has become professional and scientific, and the demand of the farmers is today more and more for this sort of thing.

About that time, or a little later, agriculture in Minnesota was in a very depressed condition. It had followed along the one line of grain raising practically ever since the state had been settled, and as a result of that, and the inroads of chinch bugs and grasshoppers, agriculture was in a very depressed state. Beginning about that time the agriculture of the state has come onto a better basis through the introduction of mixed farming and the spread of better agricultural ideas through the community, so that our present very happy situation, which today perhaps places our farmers in a more favorable position than in any other portion of this country, might almost be said to date from that time.

I saw somewhere in Germany a statute which was intended to show that Germany, after a sleep of a thousand years, had awoke to take her place in the world as one of the world nations, and it was entitled "The Awakening;" and it seems to me that the awakening of national agriculture in this country, and especially in Minnesota, might date from that time, and that that time might be termed "The Awakening," in a way, of Minnesota agriculture and horticulture to the possibilities of the rich fields of profit which were in store for it. Agricultural education in that time has grown wonderfully, and in no state in the Union has it grown as much nor as successfully, nor do I think it is on as helpful a basis elsewhere, as right here in Minnesota. It has grown in that time from nothing, absolutely nothing, and regarded with contempt by the farmers of Minnesota as a thing hardly worthy of notice—it has grown from that until today I think that agricultural education is as much appreciated in Minnesota as any place I know of, because it has been helpful, and the agricultural department of the university has had no small share in the putting of the agriculture of this section upon this prosperous basis.

At that time horticulture was in a very depressed condition like other agricultural pursuits. It had been attempted in a way peculiar to new countries, in that rough way, and with the idea that the horticulture of this state must be the same, or would develop along similar lines to that of the states from which the settlers had come. It had been unsuccessful, and the work which they had done had many, many times met with failure, until there was very little chance for horticulture.

When I came to the university I was asked if I thought there was any hope of doing anything in the line of apple raising in this state, the idea being that it was hopeless. Now, I have thought it would be a good thing for us to consider in a sort of a family way, the development of that industry in this state. It has grown, as I think I shall be able to show you, from a weakling, something that was thought wasn't worthy of much care and attention, until it is really now quite a lusty child, and I think it is still growing with wonderful strides, and that you will so regard it when we have gotten through the survey of it. I think it is a good thing once in a while to take account of stock, and that is what we propose to do here today, of the development of horticulture in Minnesota, and incidentally get at some facts that bear upon this subject.

It is hard to limit, to draw the lines between agriculture and horticulture. Agriculture in one sense includes all there is in horticulture. Horticulture, however, embraces much that is not only economic, but which is æsthetic; I refer in that particular to parks, and shade trees, and lawns, and all that, which it is hard to realize the value of in dollars and cents, and yet which means a great deal to our people. But I want to take up first the development of the economic feature, and I am going to start in with the potato, because we look upon the potato as a horticultural crop, just as much a horticultural crop as any crop so far as I can see. When grown upon a larger scale it might possibly be considered a farm crop, but for my present purpose I may regard it as a horticultural crop. Of this vegetable, we raised fifteen years ago, perhaps 4,000,000 or 5,000,000 bushels; somewhere about 4,000,000 or 5,000,000 bushels were raised in the state, and now in a good year we raise about 18,000,000 bushels of potatoes—just about 18,000,000 bushels of potatoes, from the best figures that I can get hold of. Valuing these at twenty-five cents a bushel, you will see the figures run up to considerable over $4,000,000 for this one crop. We export out of the state each year from 6,000,000 to 8,000,000 bushels of potatoes. That of itself is a big industry, and our potatoes are of fully as good quality, so I am told by the best authorities, as those of the state of Maine, which has no superior. They are said to be rather better than Michigan potatoes. Now, in talking about potatoes, I always like to tell a story about the origin of our modern potato, because the originator never got half the credit he ought to have gotten. I don't know but what there ought to have been a monument erected to him. Somewhere about the year 1850 the potato rot ran riot over this country and Europe, and as a result we had the Irish famine, and people thought it was the end of the potato industry, that we were not going to be ever able to raise potatoes again in a big way. The potatoes rotted terribly, and they were largely given up. At that time Rev. Chauncy Goodrich, who lived in central New York and was quite an observing man, said he thought the potato had run out. Nobody knows where the potato came from up to that time. Perhaps they came from the same lot that Sir Walter Raleigh brought to good Queen Bess. He thought it had run out, and it was necessary to go back to the original country of the potato and obtain a new start. He advocated that before the agricutural societies and they told him they thought he knew a lot more about theology than about potatoes and the best thing he could do was to attend to his own business. He went before the legislature and got turned down the same way, but being a minister and having missionary friends around in different parts of the world, he sent to them, especially to those of South America, and obtained potatoes. One lot that he obtained by way of Panama was called Rough Purple Chili. It had a very rough purple skin, and the flesh was mealy, although always hollow. From that he began to raise seedlings; he raised the Bogota red and sent it out as a rot-resisting variety, and they said: "Well, if the minister cannot do any better than that we don't want it, because, while it will resist the rot, it isn't fit to eat." He raised in all some 16,000 seedlings of various kinds. He raised among others the Garnet Chili. That was a very great improvement over anything that they had, and it was rot proof, and from that he raised the Early Rose. and from that has come Brazee's seedling and the whole line of seedlings that has made the potato a permanent thing in this country and in Europe. I like to give a man like that a little credit, because in their day and generation they got little enough. He never made any money out of his potatoes, but simply did the thing more for the love of it than anything else. He raised some 16,000, and he only found about one potato out of a thousand that was fit for cultivation. He raised the Calico, the Gleason, the Harrison and the Early Goodrich; he put out some thirty or forty varieties, but only about sixteen were any great improvements. Now, in connection with this industry there is one thing that the farmers ought to know; they ought to know more about the treating of their potatoes for scab. There is no need of having scabby potatoes if proper care is used, and the treatment for scab need not cost over one dollar per acre per year, and if proper care is taken to plant on clean land there is no danger whatsoever of having potato scab and there is no need of having the farm filled up with it. The treatment I refer to is the treatment with corrosive sublimate, treating the seed before planting and then planting on clean land, and in that way keeping the scab off the place.

Another line of horticulture of which the people of this state are very skeptical is that of fruit raising. Now, in connection with that I would say that we have a lot of soil in this state and locations that are wonderfully well adapted to the growing of fruit, about as nice fruit soil as can be found in any state in the Union, and we have a climate which for nine months of the year is all right for fruit; there are three months which are a little tough, and these three months make all the trouble. By the proper selection of sites, however, and the proper attention to the methods of cultivation, we are making good progress along these lines. In the line of apple raising I think that we must have produced in the past year a half million bushels of apples. Perhaps some of you think that is too big. I have tried to get at that carefully. I have gotten the statistics in good shape from one county, Freeborn county. In Freeborn county I am told that there were 6,000 bushels of apples sold by the merchants of Albert Lea last season and 1,000 bushels of crab apples sold by them; that is from Minnesota stock; they handled that amount of Minnesota stock from that neighborhood, and an estimate of a conservative man in Freeborn county for that period is 32,000 bushels of apples. That is quite a lot of apples; 32,000 bushels is 10,000 barrels, which is quite a little figure. Now, as to the whole state, it is difficult, of course, to estimate. Some counties, even near Freeborn, would probably not go over 10,000 bushels, but assuming that Freeborn county has not been overestimated, and I think it has been very carefully canvassed, I think the total in this state cannot be far from half a million bushels, and some of my friends are disposed to put it even fifty per cent higher. The great risk for apple growers is in the root of the plant. It is from the root that they get the trouble in most of the apple trees of this section, particularly of the apple trees planted in Minnesota; and, by the way, there have been over 500,000 apple trees planted in Minnesota in each of the last two or three years, and I don't know but what more than that. I know one dealer tells me that he sold last year over 200,000 apple trees in this state. Now, the root is the sensitive part of the apple tree as at present sold in this state. We have to have stocks to graft them on, and these stocks are generally seedlings from the French crab, which is used for grafting, and that apple is not sufficiently hardy to stand our conditions, so we will have conditions like this sometimes: We will find in the spring of the year that our tree has its wood in good condition, trunk in good condition, but it just leaves out and dies, and we find when we examine it closely that the root is killed. That is what we know as root killing. Now, if we could discover a root for the apple which would be hardy we would relieve the situation very much indeed and make it possible to plant apples in Minnesota with as much certainty as they do in many of the sections which we think are especially blessed in their ability to grow fruit. There are a lot of experiments being made now in the use of hardy roots for this purpose; they are trying the roots of the wild Siberian crabs and hybrid crabs. They are also trying methods of protecting the roots from severe frost. We have ideal conditions this winter. If we had conditions like this every winter from the time cold weather sets in until spring, Minnesota wouldn't stop with any such amount of apples as we have now; we would be raising now, in my opinion, upward of three or four million bushels of apples per year; it would be a natural outcome, because we would have success where we now have failure. Many of the orchards of Minnesota fail through the fact that the trees are not reasonably well cared for. They are planted out and allowed to grow as they can. If the trees were properly cultivated and properly protected from snow and cold there would be a very much larger percentage that would come into bearing. I think now that probably not over one in six of the apple trees sold in Minnesota ever come to maturity, but you needn't think that is such a bad showing, from the fact that even in our best fruit states not more than one in three or four come to maturity, because people generally don't take care of the things they have, and I guess that will apply to almost everything else that is raised on the farm.

Now, the subject of small fruits is one in which we have more faith than in the apple, as a rule. I want to say in regard to this apple raising that it is not so much the location as regards north or south of a given line as it is the location as regards the local surrounding elevation and the nature of the soil. Now, I was very much surprised last autumn to go up to Brainerd, in Crow Wing county, and see the nice showing of apples—about thirty kinds—at the county fair, and when I tell you that I saw a nice show of apples raised in Manitoba, north of the Minnesota state line, you might perhaps be more surprised; but we don't mean that you can plant commercial apple orchards on the black soil of the Red River Valley and be successful, because that is not a soil that the fruit will grow on very well. In the matter of small fruits, we have made a great deal of progress, and are getting onto a commercial basis faster than ever before. The small fruit industry of this state is increasing very rapidly in the form of farm horticulture, and I have some statistics here that I want to give you in regard to that. Now, in Minnesota there were raised of blackberries, currants and gooseberries perhaps $40,000 worth in 1900, and of raspberries, according to the census figures, 1,252,000 quarts; of strawberries 2,506,000 quarts, according to the United States census, which will make the total estimate of the small fruit raised in this state in 1900 about $450,000 worth, making a pretty good showing. In the one item of grapes, which we pay little attention to, and which we think ordinarily don't cut much of a figure in Minnesota, in that one item we are handicapped by the fact that we have to lay our vines down in winter. Now, to show you what the possibilities of such an industry are, if the grapes were one cent higher per pound I believe that the state of Minnesota would raise enormous quantities of them, but on account of our being obliged to cover our vines in winter we are not doing so much with them in a commercial way as we otherwise would. In the case, however, of the Delaware grape, we can raise it here perhaps as well as almost anywhere, and I know some few growers who are making a good thing out of it. In connection with the commercial development of this industry, I note that there is a tendency to form fruit associations, that is for co-operation along the lines of marketing small fruits, which is very beneficial. I know of one little town which has not over three or four stores, from which they sold last year over $50,000 worth of small fruit and apples. Now, that was a great benefit to the people of that community. They got a higher price for their fruit and it was done without very much labor. They hired an agent to market the fruit for them. He lived near the station at a little storehouse with an office in it, and there he was with his stenographer, and he was able to reach all the markets tributary to that section, and he kept in touch with them, and he handled the biggest part of the fruit in that locality. Now, by the old methods, when a man had a lot of fruit to sell, ordinarily he had to drive to town with it, some fifteen or twenty miles, and then stay around half a day to sell it; he would start at three or four o'clock in the morning, be away all that day and get back late the next evening in a very tired condition, and he was away from the farm when he ought to have been there managing things. It resulted also in keeping that fruit off the market much longer in the hands of a large number of growers who were competing with one another in their efforts to sell.

In the matter of plums, we have just the beginning of an industry with great possibilities. Not over fifteen years ago our catalogues did not show over three or four varieties of plums that could be depended upon in this section. Since that time, I think I am safe in saying that 100 varieties have been put out that are hardy in this section. There has been a market created along that line, and it has come from the cultivation of our native plum, so that last year we sold in this state plums to the value probably of $40,000 to $50,000. There is an interesting thing in connection with the development of native fruits. As I said when I began to talk, it is very natural for settlers to bring with them the ideas of fruit raising that they had in their home country, and so when the first settlers came to this country they brought with them the fruits of western Europe, and they were tried, and tried faithfully, and most always were found wanting; a few have been grown successfully, but the most of them have been found wanting, and the fruit industry of this country has been built up largely upon the native fruits of this country. The varieties of the fruits which those settlers brought with them have not flourished here; for instance, the growing of raspberries as a crop didn't amount to anything until we began to get our own seedlings. The same is true of apples; we have a few varieties, it is true, that have come from the old country, but the great market varieties of this country today have originated in this country. The same is true of grapes; the grapes of this country that we are growing today have come from the development of our native sorts. You know that in Europe they don't have any great industry in grapes such as we have in this country; they don't have anything of the sort; they don't believe in taking their grapes in the solid form; they take the grapes in liquid form almost entirely. You visit the Rhine section, and almost all of those great grape growing sections, and you will find there is very little attention paid to the sale of the fresh fruit, but wine is the product that is sold and used. Now, in the development of this industry here, in putting it on this basis, I think we have greatly helped the temperance cause, and then we have made it possible to furnish a practically new fruit. I was traveling in England at one time and a grape grower told me he expected to get about three shillings a pound—seventy-five cents a pound—for all of his crop. They were greenhouse grapes. The English will buy half a pound of grapes and take them home, and they will have one or two grapes apiece around. One enterprising American concern shipped to England three years ago quite a lot of American grapes, Concords, Catawbas, etc.; it was done with the idea of introducing the industry there, but it did not take well. The Englishman would say: "Don't you know you cannot chew them up? They are sour in the middle, and you have to spit out the skins." They didn't like them, and it would require a great deal to develop that kind of an industry over there. But we have them here, and it has resulted in making grapes to cheap that no one need deny themselves of all the grapes they want in the season.

A wonderful development has been achieved in this country in raising vegetables for market. It is astonishing. Not over fifteen years ago in this state there was very little done in shipping vegetables aside from potatoes, very little indeed, but of late years we have got so we ship melons, cabbage, onions, in fact, ship almost all kinds of fresh vegetables, including celery and radishes, and it has developed very rapidly in the last few years. I figure that the gardening business of this state amounted last year to about $900,000. The trucking business of Minneapolis amounted the past year to about half a million dollars; that is as near as I can get at it, and that is after considerable careful study of the situation. In St. Paul it will run up to perhaps $300,000 a year; estimating the whole of the rest of the state at $100,000, which I am sure is too low, so that the trucking business of this state must amount to pretty close to $1,000,000 per year. There was sold in Minneapolis last year of vegetables raised in greenhouses and hot-bed sash about $60,000 worth. I do not know what the figures were in St. Paul, but it is not nearly so much. I should say ten or fifteen thousand dollars worth would be ample for St. Paul along this line.

There is quite a marked development just now in and near Chaska, on some of the marshes there, in raising celery, and it won't be many years before we will see a nice business in raising celery, not merely enough to supply the wants of this state, but adjoining states as well. This is easily possible, and when we get to be able to do that thing in a commercial way, we will wonder why we didn't do it before. When it is put on the basis of a good, practical business there is a good deal of business in it, and profitable business, too.

The flower gardens, or the flower greenhouse business, the flower business, the raising of such things as that to please the people, the raising of flowers and plants in this state has got to be quite an industry. In the life of one man it has grown up from nothing. The pioneer in the business in this state, Mr. Mendenhall, told me a short time ago that when he first began the flower business he gave away all the flowers; he gave them all away the first two or three years, and the first year he began selling them he sold $154 worth, and he has worked it up until now he sells $40,000 worth in a year. He estimates that the flower business of Minneapolis is worth about $200,000 a year, and the flower business of the rest of the state will run up to about the same amount, making a total of about $400,000 worth for the state. Now, that, I think, is something of an index, a good deal of an index of the refinement of the people and the condition they are in financially. People who are not refined in their ideas don't care much for flowers; people that haven't wealth or means don't buy flowers, so it is an index of the development of the state, and wherever that one fact is known outside of the state among people, among discriminating people, it is a great big index of the development of the state of Minnesota from the condition of a frontier state to a highly civilized state.

The nursery business is one that should be an index to the development of horticulture—the amount of nursery stock sold in the state. Now, I know that the nursery men get an awful lot of hammering from the people. They are classed with book agents. I remember one time I heard Dr. Abbott say that there was a great deal said against the book agent that was unjust; that as he traveled over the state he found many homes that had books in them that had it not been by reason of the book agent forcing them on them they never would have had one, and he could always tell whether the books were forced on them by a book agent or were selected by themselves. And I can generally tell when a man has nursery stock whether he has purchased it from an agent that has forced it upon him, or whether he selected it according to his own notion. Of course when a nurseryman gets pounded for a thing that is wrong it is very easy to put it off upon one of the "boys." It is customary on the farm, I believe, and it is natural for the nurseryman to do the same. But with all this sending of nursery agents out through this state—they are bright fellows, lots of them just as bright as you would want to meet. They do distribute a good many good horticultural ideas, along with a good many rather poor ones. At the same time it is in the development of horticulture, and while it is just like that good book on that fellow's table, forced there by the book agent, it is going to do something for that fellow in a literary way perhaps, and it is the same way with the fellow that has bought some nursery stock that he would not have gotten if it had not been forced upon him, it is going to help him a little anyway. One nursery man told me that he had sold about $200,000 worth of nursery stock in this state. The twelfth census gives it as $383,000 worth as the sales from the nurseries in the state of Minnesota. I am quite sure there is more nursery stock sold in the state than is raised in the state, and there cannot be far from $500,000 worth of nursery stock sold in the state of Minnesota every year. Now, that nursery stock is being better selected every year. The nurserymen are taking advantage of everything in the line of horticulture which will make an improvement in the way of protecting plants that will make horticulture more successful, because they are in it to stay, and they recognize that the business must be on a permanent basis if it is going to amount to anything, and they are anxious to take any reasonable means to push their stock. I think the nursery business in Minnesota is today in a very good condition indeed, and I think that half a million dollars worth of nursery stock sold in the state is a pretty good index of the fact that the people of the state feel encouraged in the planting of trees and shrubs for fruit, and in the planting of ornamental stuff. There has been a great increase in the sale of ornamental plants in the last few years. People that do not have means and do not have refinement don't care about ornamental plants. They will get along without them just as long as they can.

In this connection I want to say that dairying and mixed farming is a pretty good preparatory work for horticulturists. So long as a man raises wheat on his farm by working eight or nine months in the year and the rest of the year is off his farm or is just taking it easy at home, just so long he will avoid settling down to anything like horticulture, because to be a good horticulturist you have got to pay attention to a whole lot of details, and they won't do it; but as old William Somerville used to say, "You just tie a man to a cow's tail," and keep him there so he has to be there morning, noon and night, and practically all the time watching those cows, then you are just training him to make a good horticulturist; that is going to make him not only a good horticulturist, but a right good citizen.

Now, in regard to the development of gardens. I think there has been but little thought put on the amount of garden stuff raised for home consumption. It is a great big lot when you get it together. I hardly knew how to get at that, but I took this for a basis: I said there are 160,000 farms in Minnesota—153,000 according to the twelfth census—and I estimate there are seven more thousand in the state than at the time that census was taken; I estimated 160,000 farms in Minnesota and 160,000 gardens. Of course every farm has not a garden, although everyone ought to have a garden, but I know this, that for those farms that haven't got a garden there are a whole lot of people in the towns and villages of this state that will more than make up, I think, for these farms that haven't got a garden; so I assume there are 160,000 gardens in this state, and that the product of each garden is worth $20. That may look a little high, but I think I am rather conservative on that; and if that is true, and I believe it is, then the value of the gardens, or the garden stuff raised in the state of Minnesota and not put on the market for sale is $3,200,000 a year. That is a pretty big figure for the "garden sass" raised in Minnesota.

Now, there is another thing we don't often think of in the line of horticulture, or of its advantage to us; that is wind-breaks. What is a wind-break worth? What is a wind-break worth if you are out on the prairies of Lac Qui Parle county, and you have a herd of stock, and you want to turn them out in a barnyard in the winter, I would like to know? You have a herd, we will say, of fifty cattle. What is the value of a first-class wind-break around that farmyard? Is it too much to say $25 per year? I think that is very conservative.

A Voice: Four times that.

Mr. Green: Four times that. We will assume that on one-half the farms of Minnesota there are wind-breaks that will equal in value what would amount to $25 a year, for 80,000 farms—I know there not not quite so many farms that have them, but there are some farmers that would value it a great deal higher than that. Now, then, it is not only the value to the stock, but to yourself and the family. I assume there are 80,000 farms with wind-breaks worth $25 each per year. If that is so, and I think it is conservative, then they will run up to $2,000,000 as the annual value, not the total value, but the annual value of those wind-breaks to the people of Minnesota each and every year, and that is increasing very fast, and it is a big factor.

As for the value of the shade trees; did you ever think of it, that every shade tree that is planted out is a lesson to someone; it has interested somebody in horticulture, or perhaps increased their interest. As to the value of the shade trees in this state, I don't know what it is; I don't know how many there are, but I assume there are somewhere about 70,000 shade trees planted on the streets of Minnesota, planted as they should be. I don't know what they are worth, but I should think they ought to be worth—they would be worth to me—$15 apiece if four or five inches in diameter. You couldn't get them from me for that. I wouldn't take $100 for a tree in front of my house of that size. It is hard to estimate the value of trees. Courts have held repeatedly, I believe, that trees are worth their cost when set out, adding $1 per year for the time they have been growing, and when you get a tree a foot and a half in diameter in front of your house you wouldn't take anything for it almost. Many times the presence of the trees would amount to the difference between a sale and no sale when you are trying to get rid of your property.

As to the value of parks. I don't know what they are worth, but the people of these two cities pay out $200,000 or $300,000 a year to go and visit those parks, and they look upon it as a mere bagatelle, a mere nothing at all, what they pay out to visit them; of course you can figure the value of the parks as well as I can.

The future of horticulture will see a great development, I think, of school gardening. Gardening or horticulture is better adapted for this movement in the schools, for interesting children in agricultural things; it is better adapted to that purpose perhaps than any other phase of agricultural science, and the future is going to see quite a growth in that direction. But it has got to come by educating the teachers so they know something about the subject, and it seems to me the most natural way for them to acquire this knowledge is by giving the instruction in the normal schools. A normal school ought to be a natural school, and the normal schools ought to include horticulture and agriculture in their courses; enough at least to give their graduates an intelligent interest in the subject.

In this growth of horticulture, the horticultural society has been a very important factor. In the time of which I have been speaking the horticultural society has grown from a little over 100 members to a membership of 1,250—the enrollment was 1,250 last year. That is the largest, I think, of any horticultural society in the United States, and it has been no small factor in the development of horticulture here, and it is also an index to the development of the state along these horticultural lines. So you will see, I think, that this child, this weakling, which was born we will say fifteen years ago, has become quite a lusty child, and the outlook for the future is that it will continue to grow and reach a good, well-developed, strong manhood. (Applause.)

The Chair: Are there any questions you would like to ask Professor Green?

Question: He mentions raising celery on swamp land. Has that land been drained?

Professor Green: Oh, yes, it must be drained; not necessarily dry; the water ought not to be too far from the surface, perhaps not over two feet. It will not grow in wet land, but moist land is well adapted to it.

Mr. Gibbs: I want to ask Professor Green one question; not for the purpose of drawing him out, but because I want to know. Has any attention been paid to the development of the native cranberry marshes in the northern part of the state, and in Wisconsin, over about the head waters of the St. Croix, to bring them into commercial use, as they have done largely at the head waters of the Wisconsin river?

Professor Green: I don't think there has been very much done in that line in those sections you speak of. I don't know that much has been done so far. I am not aware of it. I know there have been some experiments made, but I do not know of any that have been very successful on a large scale.

The Chair: Are there any further questions? We have indeed been very highly entertained by Professor Green on this very important subject of horticulture, and I am sure many of us have been greatly surprised to even know the value of flowers—the flower industry of the two cities amounting to $400,000. There has been much information given us, which I am sure you quite appreciate.

Ladies and gentlemen, you can, and I am sure you do, quite appreciate that a president of a university with an attendance of 4,000 students must of necessity be a very busy man. Knowing this to be the condition of the president of the University of Minnesota it was with some reluctance, I am sure, that your committee extended him an invitation to talk to you this afternoon, but his cheerful and ready response, that he would only be too glad to do it, caused your committee much satisfaction, and I am sure if you listen to President Northrop that you will be as much gratified in hearing his discourse as we were in receiving his acceptance. It is my pleasure to introduce to you President Northrop, who will now address you.

ADDRESS OF PRESIDENT NORTHROP.

Mr. President and Gentlemen: There is an old adage which reads thus: "Let the shoemaker stick to his last." It means that the man who knows how to make shoes should make shoes, and the man who knows any other trade should stick to his trade, and that nobody should depart from his specialty and try to be somebody else. Now, I am a little afraid that some of you gentlemen, learned as you are in agriculture, may think that I am not following that advice this afternoon in coming here to address farmers, and I am not going to stand here and talk to you under any such implied imputation. I want you to understand, first of all, that I was born on a farm; that up to the time that I went away from home to complete my studies I was as familiar with the operations of the farm as any one of you are today, and that I can tell you everything of any importance that went on on the farm, including the exact rotation of crops, the size of the fields devoted to the various kinds of crops, the condition of the garden, the number of cows that I milked, the churning that went on for the making of butter, and all the other agricultural operations, and if I am not a farmer today, I have had so much experience in farming that I claim your respect as not being entirely deficient in the knowledge that is necessary for success in life as I stand before you. If you grant me that standing I shall only be too happy to talk to you; if you deny me that I don't want to say anything to you. If I cannot have the sympathy of the audience and the respect of the audience as a man who knows something, why, I want to be counted out and let you go on with your regular business.

Cries of "Go on!" "Go on!" and applause.

(Continuing.) Now, I know what I am about. Why, in saying these things this audience looks fifty per cent happier than it has looked at any moment since I came into the room. (Laughter and applause.) There has been a solemnity upon the countenances of this audience that is quite appalling, and I have said to myself, "Is it true that these farmers are taking things so seriously that they cannot even smile when Green is giving these statistics that they ought to be happy over?" (Renewed laughter and applause.)

Now, I have a good many things to say that I would like to say this afternoon, but they have got to come up as they suggest themselves. I cannot teach you agriculture, as you know it here in Minnesota better than I do. You know the conditions here are different from what they are in the East. You know that the natural cheapness of the land here makes it possible for a man to own a farm three or four or ten times as large as they are in New England; this has changed the conditions very much, and has called for the invention of machinery by which a man rides over his fields in plowing, and reaping, and sowing, and everything else pretty much. This invention has entirely changed the whole life of the farm, so that operations can be carried on on a much larger scale than they could in the old time in New England; but I am glad that in yesterday's meeting, and I don't know but what it has been so before, but certainly I noticed by the papers that in yesterday's meeting the keynote was struck—that you have got to see to the fertilizing of your lands in Minnesota if you would attain the highest results. I am enough of a farmer and a scientist to know that you cannot take crops out of the earth that are continually stealing away the elements that give life to the crops unless you put those elements back in some other way, and you cannot raise one crop that is a consumer of the vitalizing elements of the earth year after year with success, and while you can ride over a number of acres and get a large result, the time is coming when the farms have go to grow smaller and the agricultural operations have got to be more intelligent and economical. Every acre has got to yield more than it does now, and as the multiplicand grows smaller the multiplier must grow larger. As the number of acres diminish in any farmer's hands the amount of intelligent labor and care applied to each acre must be very materially increased. And before I forget it, I want to allude to a remark that my friend Green made; I want to make another remark in reference to what he said about flowers. It came to my soul like a wave of joy to hear him advance that doctrine; the doctrine that the amount of appreciation which a state has for flowers, for a mere thing of beauty, a thing that does not feed the body, is a test of its advancement in civilization, and it is. Now, I have a wife at home who would rather have a flower like that (pointing to vase of flowers on speaker's stand) put by her plate in the morning, and take nothing but a little Force and milk, or some other breakfast food, and dispense entirely with your beefsteak and all the other luxuries you can put on. She would get more joy out of that flower than any amount of high living you could give to her. She loves flowers; she has a passion for flowers, and when she raises, as she sometimes does in the house, little flowers, it is curious to me to hear her talk to them as though they had living souls and could appreciate what she said. And just so far, gentlemen, as such a spirit of appreciation and love for the things that are beautiful can be cultivated in this state, it does not add to our wealth in one sense, but it does add to the character of our people; it refines; it beautifies; it spiritualizes; it elevates men and women up from being mere animals and makes them sons and daughters of the great Creator of this world of beauty. (Applause.)

Now, I come back to about the point where I wanted to start, and it is with this thought, that there are two ways of looking at life; the first way is to look steadily and carefully and appreciatingly at the things that we have, and the other way is to look mainly at the things that we have not and long for them and not pay much attention to the things we have. The first course leads to a certain degree of contentment, and happiness and joy; the other course leads to pessimism, and misery, and sorrow and unhappiness. I read in the paper the other day a chance remark of Dr. Huntington of Grace church, New York, and he used this expression: "In this age of little joy, and great mechanism." Well, I thought, Dr. Huntington has been having some experience in regard to coal, or something of that kind and it has clouded his vision for the time being, for he is a most gracious and delightful man to meet. Why should this be an age of little joy? Why should life in a world like ours be a matter of little joy? It will not be if we look at the things we have, and make the most of them and appreciate them, instead of looking at the things we have not and longing for them, and letting the things we have pass by as of no account.

Now, you are gentlemen engaged in agriculture. I feel confident I have before me the best minds connected with agriculture in the state of Minnesota, some of them at least. You are men that are intelligent in the matter, and get together for the purpose of helping one another to the attainment of knowledge. Let us look for a moment at one or two things. Ten or fifteen years ago—I came to the state eighteen years ago—go back ten or fifteen years, look at your agricultural exhibitions, your state fairs at that time, and compare them with the fair you had last year, and have had for several years. The old-fashioned fair, consisting of an exhibition of some unnatural or abnormal pumpkin or other kind of vegetable or fruit, and with the occasional exhibition of some big animal, has passed away, and instead of that you have organized as a state fair an institution that is thoroughly educational and inspiring. A man does not go around from building to building in your state fair looking for something that he can report at home as being unnatural or abnormal. He goes in, and what does he see? Well, this has been my experience: I went into your state fair and I went over and saw that exhibit of apples; I could hardly believe that those apples were raised in Minnesota. I remember a time when at a meeting of the Board of Regents of the university, the first peach ever raised in Minnesota was presented to General Sibley, the president of the board. It was exhibited by being handed around to the members, and we were told that that peach was raised by cutting the roots off from half the tree and bending the tree over and covering it in the winter, and in the spring lifting it up and letting it grow, until it had produced one peach. Now, I don't know to what extent peaches may be produced in Minnesota at the present time, but I am very sure of one thing, and that is that Minnesota is not a natural peach producing country, and if I was a member of the Agricultural Society I should not be in favor of devoting a large part of our energies to the production of peaches, any more than I should be in favor of producing in some abnormal way oranges and bananas in Minnesota, because this is not the natural place for their production. and I have felt very much the same way in regard to apples, but there the apples were, and they are being produced in increasing quantities, with increasing beauty and increasing richness of flavor;

and if they can be produced as they have been it should be and it is an enterprise that is worth cultivating and throwing upon it all the possible light that science, and experience, and good judgment can give. I go a little farther in your fair, and I discover a vast improvement in the character of every kind of animal exhibit and of the fowls of various kinds; the cattle are better; there is a look of prosperity all over the fair; the people who come there look prosperous, and they are prosperous. I go out through the state of Minnesota, and instead of seeing what I did see when I first came in here, many places, houses out on the plains that looked as if the man and woman that lived there had a hard life, with no evidence of wealth or prosperity, of that ruddy, blushing, glowing prosperity which today is evident all over Minnesota. There was no evidence of that then. You go now and look at it; the houses are better, the barns are larger, the farms better cultivated. There is a look of civilization from one end of the country to the other; and you come here to St. Paul, with her magnificent development of business interests; you go on over to Minneapolis, with her schools, and her people living in comfort and peace, and you may go on west until you come to the prairies of Lac Qui Parle county, unsurpassed in their richness and adaptation for agriculture, and everywhere you will see such a change in these ten or fifteen years as you will hunt in the East for in vain. You are a richer people, a stronger, more intelligent people than you were fifteen years ago, and you have everything here necessary for human happiness so far as human happiness depends on general prosperity in business and in life. Now, that is true, and if you look at these things as they are and as you have them, you will be happy. You will feel a degree of comfort in the thought that you have accomplished so much, instead of looking around and making yourself miserable because your wheat fields will not produce bananas and your corn fields will not grow oranges and lemons. (Laughter and applause.) Now, what I want to impress upon you first of all in these things is that the way to look at life is to look at it hopefully and joyfully if we can; to look at the things we are blessed with, a good climate, an invigorating climate; good lands, and lands that can be used almost forever without being taken care of and enriched, and a territory large enough to take care of a great many more people than it now contains. Well, those are some of the things.

I turn to the subject of agricultural education. I have in my pocket here a letter which was written to me by the agricultural editor of the New York Tribune Farmer about three weeks ago. He enclosed in that letter a proof sheet of an article that was to appear in the New York Tribune about January 1st, and he asked me to write something in reply. Well, I haven't written anything in reply. I may do so. The article is this in substance. There is a man in Connecticut, I know him well, who has for years been following these agricultural colleges with a series of criticisms, and this article is somewhat of that nature, but he begins the article by quoting from the recent action of the Grange of Michigan, that by a unanimous vote it denounced the agricultural colleges of the country as inefficient, and as not having in their curriculum the things that were necessary for the fullest development of young men for the work they were called to do, and this man writing for the Tribune takes that up and sympathizes somewhat with that view, and goes on to rub it into the agricultural colleges. Now, the singular thing about this is that this action of the grange occurs in Michigan, where they have had a distinct agricultural college, independent of the university, under the control of a Board of Regents, especially devoted to agriculture for a great many years, so that when the act of 1862 came, making an appropriation from the general government to the various states for agricultural education, there was no question in the state of Michigan as to where that would go; it went right to the agricultural college, and if it was possible for an agricultural college to meet the wishes and wants of the farmers, it would seem that it ought to have been done in Michigan, but the grange in that state says it has not. I simply bring this up as an illustration. Now, let us look at Minnesota. There isn't a grange in Minnesota today; there isn't an agricultural society in Minnesota today; there isn't a coterie of farmers in Minnesota today who have intelligence enough to admit them into a respectable society of farmers, that will say that the agricultural education of the state of Minnesota is not being conducted in such a manner as to contribute most mightily, and helpfully, to the development of this industry in the state (applause); not one of them. Here you have the school of agriculture, a peculiar product of Minnesota. It has been in existence about fourteen years. The men who run the agricultural colleges and the other agricultural departments in the other states of the Union have on one occasion at least been here in convention; they have been here as individuals from time to time; they have been taken over to the school of agriculture, and they have had it pointed out as an object lesson to them; they have admired; they have gone away, and not one of them has ever duplicated that institution, or apparently tried to do it. That school stands alone in the country today without anybody having tried to imitate it, although everybody that has been there, connected with agriculture in an official way, has admired the system and thought it good. They seem to have been either too lazy, or too much devoted to some other system and couldn't change into another, or for some other reason they have neglected to do it, and yet that school is the key that opens the door into the main room where the great processes of agricultural education are to be carried on, and these states have made no provision for taking the boys from the farm and inducting them into the two lines of study, first, the line which cultivates their minds and makes them thinking and useful men, second, the line that gives them technical education and makes them thinking, useful farmers; that school has prepared the way for a future work in this state in connection with agricultural education such as cannot be found in any other state in the Union. The attention of those interested in farming in the past has been largely directed to the school of agriculture, and there has been a desire that the graduates of that school should go out into the state and become practical farmers and let what they have learned shine out as a light through the land, and they have largely done so. And as the years go on, gentlemen, I am certain that you will feel the desirableness of having more and more of these young men who take the course in the school of agriculture go on and take the full course in the college of agriculture, that they may have not only the practical, actual experience that they get in the school of agriculture, but may have a more thorough, scientific knowledge of the principles of biology, and the other sciences that connect themselves with agriculture, and they will find when they graduate that the world is waiting for them, that there is a place for them in Minnesota, and in other states, and that they can find plenty to do where their influence and their teachings will tell in the interests of good. (Applause.) One of our brightest young men has just gone down to take a place in Alabama; another to Washington, and if you have sons that have agricultural blood in their veins, that want to make themselves a power in the world for good along the lines of agriculture, send them to the school of agriculture, and then send them on to take that four years of college training in the college of agriculture, and graduate with a scientific and practical knowledge combined.

Well, I am not quite done with this New York Tribune article. The man in that article claims that there are no sciences which practically are of any importance to agriculture, and that there isn't any such thing as an agricultural education; that men who come to this country to find out about our agriculture don't go to the schools of agriculture, but go to the farmers; he says the plants knew how to grow before anybody set up any knowledge of botany. Well, that is very true, gentlemen; men and women knew how to grow before anybody set up as doctors or ministers or lawyers or anything else of that sort. This world was started and then put into the hands of the human race to carry it on to something nobler and better than was originally given (applause); and that is so in regard to agriculture. You tell me there are no sciences connected with agriculture; I tell you that is false. The God of nature that made this earth, made it to produce certain plants in certain ways, and there are laws for their growth and development just as complete, eternal and perfect as the laws of life in man, and biology, in its double position of expounding plant life and animal life, is equally important to the world and to the agriculturist. To those who are learning the principles of farming in the state it is absolutely essential, and if they do not themselves understand these laws in regard to the growth of plants, there should be men that do, just as it is necessary, if I should have appendicitis, that there should be men who understand it when I call upon them, and that can take care of me without killing me. Now, you want in agriculture just that same thing. There is no use talking. You go and plant something in one field and it will grow; you plant it in another field and it will not grow. Here is this black soil out in the Red River Valley, exceedingly good for some things; Mr. Green, who knows everything (laughter), says that fruit will not grow up there. Well, anybody up there that will plant anything that Green says will not grow there, will be throwing away his money and his time, and everything else, a foolish fellow. (Laughter and applause.) What you want to do, gentlemen, when you propose to start anything new on your farm, is to come up and see Green (renewed laughter); if Green doesn't know all about it, why there is Hays over there smiling (laughter); for what Green doesn't know, Hays does. (Laughter and applause.) Well, now, the point is just this: those men over in Michigan haven't been as wide-awake as our men have here. I am no sympathizer with one or two heresies, and I am going to speak of them. First, I am no sympathizer with this heresy, that because a thing is a mighty good thing, there isn't anything else in the world that is worth anything. Now, I appreciate the value of agriculture, I appreciate the value of agricultural education, but I don't want anybody to come around and tell me that we don't want any engineers; we don't want any school teachers; we don't want any doctors; don't want any lawyers, we have too many of these; we want nothing but agricultural education, and nothing but farmers in the state; that is a heresy. I don't care how many farmers there are, I want them to grow in intelligence and character and influence and everything else; God bless the farmers; they are going to be the salvation of the country ultimately. You can fool them once in a while, but you cannot fool them generally, and they stand in all moral questions and at all times of crises and danger to the republic—the farmers stand like the "old guard," ready to defend the old flag and all its interests. God bless them! But we want something besides farmers. We want men who can teach children. We want men to teach men that there is something hereafter. We want men who can take charge of the immense industries of the country in the way of all kinds of manufactures, but still more under this tremendous co-operation of capital through which we are now passing. We want men who know something everywhere. We want specialists in every department of life, and the need of specialists is growing more and more imperative because these combinations of capital are engaged in enterprises so immense that no man can do what a man used to do alone. He has got to trust the most important things to men that know how to do them, and the men have got to be trained for them, and trained for it specially. Now I am in favor of this training to meet the emergencies of the twentieth century and the future glory of this American republic. All hail to the development of agriculture! Let the prairies glow with beauty and with richness. May your wheat fields more and more abound. Ten years ago the whole crop of Minnesota, in every department, barely exceeded the amount of the wheat crop of today. Make your crop as large as you please. Roll out from the earth your tons and tons of rich, mealy potatoes. There is nothing better for the human body to take in and digest as I know of, and certainly it has worked well with the Irish. (Laughter.) Go on with the development of agriculture, and let your people grow rich, and let the banks swell with the savings of the farmers; it is all right. But we are going on increasing in population. Farms will not last forever to be distributed free to the people. As men multiply and get closer and closer these various interests of business must be multiplied also. New things must be made; new luxuries must be provided; new conveniences must be manufactured. The whole busy hive of civilization goes on, and goes on right, because there are men that are trained for every specific place to the duty that that place calls for. Now, we want that kind of training in Minnesota, and that is what we are giving. We are training the boys in agriculture as they are not trained in any other state in the Union. The college of agriculture and the school of agriculture through the generosity of our Board of Managers, is having an opportunity of doing a work that is not done in any other state and I congratulate you all upon that fact, and I hope that the people of the state will show their appreciation of this generosity, so that the best possible results can be secured in the future. And at the same time we want to remember that the country schools out on the prairies need to be cherished; that you cannot have your children grow up in a school that is infamous in its air and surroundings and be the young men and young women that you want your children to be; that environment has a great deal to do with the making of character. You want these schools to be good, that the children may grow up with high ideals of life, of duty and character, and you want teachers with soul and mind and knowledge sufficient to be an inspiration and a guide, and if you do that, the foundations of education among the people of Minnesota will be most substantially laid. I say that you want to provide for the things that tend to the better and the higher life of the people. Happiness! We are all after happiness; and what does it come from? It does not come entirely from a full stomach; it does not come entirely from unbroken sleep; it does not come entirely from a full bank account; all these things may contribute, but it comes to every man finally, ultimately and fully only when he is conscious that he is doing his duty as God gives him the power to do it; when he is at least filling the place assigned him; that he is not hurting his neighbor, and as far as he can, is doing good to him; that there is emanating from him and going out to those around him, and becoming a part of the atmosphere of the state, a spirit of brotherhood and love, which does to others what he would like to have done to himself. Cultivate that. Let us raise up our boys and girls to have a spirit like that. Let us make Minnesota not merely the richest state, and not merely the broadest state, and not merely the coldest state, but let us make it the cleanest state; the state in which the men and women reach a higher civilization, and come nearer to being in very truth the sons and daughters of the Lord God Almighty than those of any other state in the Union. I summons you, men of the farm, men of thought, men of ideas, when who are trying to make the most of and for your fellow citizens, to join with every other good citizen of the state in lifting the standard and making the state what it ought to be. (Applause.)

Mr. Stebbins: We have all been very highly entertained by the words that have fallen from the lips of our President Northrup. He has made it possible to go home with a broader view of life, with our hearts and minds expanded, that we may be enabled to fill our station in life, no matter how humble, to a better purpose than we have ever filled it before. In fact, he has made us all optimists and not pessimists. I move that we extend to President Northrup a vote of thanks, and that we extend it by a rising vote.

The Chair: You have heard the motion, that we extend to President Northrup a vote of thanks by a rising vote. All please rise. (Audience rises.)

The Chair: Ladies and gentlemen, this concludes the exercises of the afternoon. I do not want you to forget the programme that will be given in this hall this evening by the school of agriculture of Minnesota. If there is no further business, we stand adjourned.

WEDNESDAY EVENING SESSION.

Jan. 14, 1903, 8 o'clock p. m.

(Under the auspices of the agricultural department of the University of Minnesota.)

Dean Liggett presiding.

The Chair: It has been the policy of the Board of Managers of the State Agricultural Society, more especially in recent years, to emphasize the educational features of the state fair, and we have found that the more attention we have given to this line of work, the more successful our fair seems to have been, and in keeping with that policy an evening has been given over to the school of agriculture at each of our annual meetings in order that the young folks might have a chance to participate. Now, these young people will in the future, at no very great date hence, be the active participants in these meetings, and it is well enough that they should have some training as they go along, and while these young people have only had a little time for preparation for the short talks they will give this evening, I am sure they know what they are talking about, and will try to tell you just what they intend to, although their training in this matter has been very limited.

We will open the exercises by a talk upon "What the Red River Valley Farmers Need Most." The young man who will respond to this subject is one of our students who has been in the Red River Valley taking farm statistics in co-operation with the United States government and the experiment station. While there he has been certainly doing right in identifying himself with the farmers' institutes, he has become secretary of the farmers' clubs, has learned their needs, and has made some observations, and will no doubt tell them to you in an intelligent manner. I therefore will present to you, as first upon the programme, Mr. H. H. Mowry of Anthony, Minnesota, who will now speak to you.

WHAT THE RED RIVER VALLEY FARMER NEEDS MOST.

BY H. H. MOWRY, ANTHONY, MINN.

Ladies and Gentlemen: What do the Red River Valley farmers need most? This is not an easy question to answer. About a month ago when I was up in the Red River Valley I received a letter from Mr. Liggett, asking me if I would give a talk on this subject. I was in a dilemma. It was hard for me to decide what thing above all others they needed most, but I thought it would be a good plan to get some ideas at first hand from the people who have lived there for many years, so when I got home I decided I would ask the landlady where I boarded, a good farmer's wife. It was wash day, and I found her up to her elbows in soap suds. I told her I had a letter from the experiment station asking me for a talk on the subject of what the Red River Valley farmer needed most, and I asked her what she thought the Red River Valley farmer needed most. She stooped over to pick up a heavy flannel garment that her better half had been wearing for quite a while; she picked it up by the collar and stood it up that way (illustrating) and she said, "Just look at that; sure it can pretty near stand alone, Mr. Mowry," she says, "I think these Red River Valley farmers need a bath." (Laughter.) And she has lived there a long while and she ought to know what she is talking about.

But before I go on finding fault with the Red River Valley and the people in it, it might be well to say a few words about the country in general for the benefit of those who have never been there. The Red River Valley is a strip of country from twenty-five to fifty miles wide in the northwestern corner of Minnesota and the northeastern corner of North Dakota, which is drained by the Red River of the North. It is perfectly flat except for four slight depressions; they call them sloughs up there, and it has an imperceptible slope toward the northwest. The flatness of it makes it a very desirable country to farm; hauling is very easy; good roads can be made, and there is very little wear and tear on machinery. There are no stones there. A load of stones there is worth almost as much as a load of coal in St. Paul. But it is so easy to get a living there, and it has been so easy, the land is so fertile, that a great many of those people have gone to sleep. There are places there that have been cropped to wheat continually for the last thirty years, and while the people who live in the Red River Valley are very much the same as the farmers that live in other parts of the United States, yet by their environment they have gotten into some bad habits that farmers in other parts of the country have not gotten into.

This question divides itself into two phases: The physical needs of the country itself, and the needs of the people. If you should go up into the Red River Valley now, about the first thing that would strike you when you go out into the country, when the wind is blowing from forty to fifty miles an hour, would be the great lack of wind-breaks, or trees around the houses. Many of the houses stand out there alone without any shelter, and you would say to yourself, "Well, these farmers need more trees; more wind-breaks."

And if then you go up there next spring when the spring rains begin to come on, and start to drive into the country, you would very soon decide that what the Red River Valley farmers need most was good roads. I might go on and tell you some of the stories about the Red River Valley roads and mud up there, but there are probably Red River Valley farmers here, and they might not be interested in hearing them, and you might not believe any of them if I did tell them. But the roads are good in places in the spring, and if you will notice the places where they are good you will see they are well rounded off, and that they have good, deep ditches on both sides, and you will learn, too, that those places where the roads are the best, the individual farmers have gotten out and put in extra time that they were not required to do by law.

And then again in the spring when you look over the fields and see the difficulty they have getting through the mud there, why you would at once say that what the Red River Valley farmers need is drainage, and that is true. It needs drainage worse than it needs anything else. The state has spent a great deal of money in digging great ditches up there as a sort of an experiment, and what the valley now needs is a complete and comprehensive system of ditches. It ought to be under the supervision of a competent engineer who understands the difficulties and grasps the whole situation, so that it could be done the most economically and most completely.

Then if you should go up there a little later in the spring, when the crops begin to come up, you would see some of the results of the single wheat farming. You will see lots of fields just green with weeds,—"king heads" they call them up there; I don't know the botanical name, but everybody knows them when they see them up there. And then a little later, a little while before the wheat ripens, you would think they raised nothing but oats up there, as in some places the fields are full of wild oats; then you will say, "These farmers need some method of eradicating the weeds;" and they do.

Another thing you will notice is that there is not much stock of any kind. Now, they can raise stock up there, because some of them do; some of them have; and those who have, and those who do, say that it pays. They have some trouble getting a stand of grass up there, but those who have had the money to get a little of this Austrian Brome grass find it does very well in the Red River Valley. They can raise as much or more fodder corn there than anywhere else, but they don't like to handle cattle; they don't like to milk cows; some think it is not a manly business.

If you should go up there in harvest time, and see some of the grain rotting in the shock, you would think some of them needed to change their system of farming so that they could afford to hire men all the year around, and they wouldn't have to let the grain rot in the shock because they couldn't get a machine to thresh it; and they cannot hire men for any price to stack; they will not stack for $2 or $2.50 a day if they can help it.

Then we come to the individual needs of the farmers themselves, and I think if there ever was a section of country that needed to know about the Minnesota Experiment Station and the Minnesota School of Agriculture, it is the Red River Valley. There are lots of them that never heard of the experiment station or the school of agriculture. I have been asked by people who live up there if Mr. Liggett owned the experiment station; I have been asked if the state paid me for going to school. From these questions, you can readly see that they need a little more light in this direction. In general, I would say that these farmers need to be woke up. The state of Minnesota has a standing proposition, open to every farmer's son and every farmer's daughter also, that they can come and simply pay their own board, the state to furnish the teachers and the buildings, and learn how to run their business, and these farmers ought to take advantage of this. They ought to come there and learn that it is necessary to keep some stock on an average, well managed farm. They ought to know that it is necessary to feed stock if you want them to get fat or give milk. Many of those fellows don't feed their cattle very much; and then those farmers, some of them, ought to suggest to the butchers that they come down to the school of agriculture and learn how to take care of meat, and give the farmers a better quality of meat than they have had sometimes.

While these men realize that the excess of water on their land in the spring is a great inconvenience, they don't realize it strongly enough to study into the question, and they ought to take some training along that line, so that when the state does something for them, they would know how to help themselves. You take those big ditches that the state has built in the Red River Valley and a great many of the farmers are complaining about them. The ditches run from the outside of the valley in toward the Red River, and in the spring the snow out in the sandy country melts first, and of course the snow that is down in the valley in this heavy clay soil hasn't started to melt yet, and so the water comes down from the sandy country and into these ditches, and instead of following the ditches it goes on the outside and floods the farms for half a mile on each side, and they condemn the ditches and say that it is a great big scheme for some one to make money. If they would take a little time and come down to the school of agriculture, they might be persuaded that it would be wise to do a little ditching on their own account, and then this water that comes down from the sandy country would be drained off in a day or two, and they would have the best farms around there, and if they would invest a little money in tile draining, they would have the advantage of the other farmers and they would not have to run the risk of being flooded out in the summer when their crop is just about ready to cut, and they would have no need of being afraid that a big rain would come and knock it all down for them; but their land is so good that they have got an idea that it is all right to trust to luck, and if they do have reasonably good luck they get a good crop.

They need to learn that it pays to have good roads. Of course it don't make so much difference to them now, where they simply harvest their grain in the summer and sit around in the winter and wait for the roads to get good to haul their wheat, but when they get into stock a little more, so they don't have so much time to sit around, they will realize that it pays to have good roads, and they will realize that they can have the best roads on earth right there in the Red River Valley.

To sum up, I would say that the physical need of the valley is drainage, and that the need of the people, the great need of the people, is a training in their business. They need to realize that they don't need to be ashamed of farming. They need to realize that life is more than harvesting grain in summer and sitting around all winter. That idleness is a habit that can be overcome, and industry is a habit that can be acquired; to learn that it is no disgrace to milk cows, unless it is to sit in the house and let the wife do it. They need to learn that it takes just as much brains, and just as much skill, and just as much executive ability, to make the average farm pay, as it does to make any other business pay, and when they have learned these things, why, then the Red River Valley will become in its prosperity what it is already admitted to be in its unrivaled fertility—the Nile of the Western Hemisphere. (Applause.)

The Chair: The next speaker has been performing the same mission as Mr. Mowry. He has been gathering statistics as to the exact cost of growing crops, and I believe his experiences have been of more value to him than a year in college. I take pleasure in presenting to you Mr. Edward C. Parker, whose subject is, "The Exact Cost of Growing Crops."

THE EXACT COST OF GROWING CROPS.

EDW. C. PARKER, NORTHFIELD, MINN.

Ladies and Gentlemen: The subject I wish to present to you this evening is comparatively new. Some of the experiment stations of other states have attempted experiments in the matter of obtaining farm statistics, but they have done nothing that comes within the scope of the investigations now carried on by the Minnesota station. One of the schools of agriculture of another state has recently issued a bulletin on the cost of certain farm products, and the Kansas station has published some very interesting bulletins comparing the cost of labor and feeding by several methods. The records kept at the experiment stations, however, do not present the actual conditions of the farm life, and any individual account taken does not represent an average. To overcome this, it was decided to carry on work in actual farm communities, and in January, 1902, the experiment station began an investigation to ascertain as closely as possible the actual cost of production per acre of our average crops. No attempt was made to select the farms, but preference was given to average farms on which data could be secured, particularly farms devoted to grains and where the most extensive farming has a part. No financial responsibility was given the men who were selected to do the farm work in carrying on these experiments, but each man was furnished with five or six kinds of seeds of grain originating at the station, and in some cases where they were successful in raising the seed, they were given opportunities to sell a portion of their crops at seed growers' prices. Some difficulty was experienced in securing co-operation in the work, but as a rule the idea was quickly grasped and favorably received. I remember one man who listened very attentively, and then said he guessed he would be willing to do it, but first he wanted to know how much it would cost him. He evidently associated an outlay of money with everyone that traveled the road. Some men refused to co-operate because of an antagonism to the experiment station and the agricultural school, and very naturally such men would not be desirable even if they could be secured for experimental work.

To determine the cost of growing an acre of oats, for instance, a strict labor account must be kept with the field, the cost or value of the seed, the cleaning and preparation of the seed and the rental value of the land, are the first items chargeable to the land. The account with the land must show the hours of work of the men hired to plow, to seed, to harvest, etc., and when the total number of hours of work is computed, the whole can be put into money value by setting a wage for a day's work for man and team. The task of keeping this labor record is accomplished in the following manner: The farms accounted with are visited every day, and a report taken from the farmer of his previous day's work. Drawings are made of the fields of the farm, each division being designated by a letter. The drawings were all made from actual surveys, so there was no guess-work about acres. With these drawings as a guide, it is a very easy matter to separate the work to the different fields or crops. They are transferred from that to record sheets, so that totals can be made at the end of the month on summary sheets. The summary sheets will contain at the end of the year the summarized account of every crop on every field and every farm.

Other statistics in relation to crop production are also gathered. Inventories are taken every month of all cows, poultry and other farm animals, the time expended in taking care of them, and the feed fed to each and the full annual outlay in all these operations in caring for the grain crops, the hay, the cattle, milk, etc., are obtained as far as possible to obtain the information. In fact the idea is to analyze the farm operations and make as thorough a statement of them as the merchant or manufacturer does of his business. Quite recently there have appeared some very interesting articles in the Saturday Evening Post in regard to certain so-called business men who hired experts to look into the conduct of their business to determine why certain departments were running at a loss with the running expenses very high and other departments were running at a profit. These men are hired to analyze and scrutinize the methods of the firm's business, and if possible to determine where the leakage is. These men find that to keep up with the keen competition of our modern times the best methods of business must be used. I simply mention this because of the similarity it bears to the investigations carried on by the experiment station during the past year. While perhaps no definite or startling results are going to be produced very soon, I really believe these investigations ought to be and will be the opening wedge of the analyzation of farm management that will put farming eventually on a more business-like basis. It is not possible at this time to give you definite results of the year's work just completed, because the work has not yet been compiled in definite form. In many ways the work of the past year has been an experiment. A further investigation will undoubtedly prove more valuable than what has already been done. From what has been done, however, I am sure that many questions of farm management can be solved from these statistics; for instance the comparing of different methods of handling grain crops, pasture management, etc. These practical methods of obtaining farm statistics can be applied to other operations on the farm besides tilling the soil and handling the crops: the cost of bringing a steer to the market; of producing a gallon of milk or a pound of pork, would be as valuable to the farmer as to the experiment station. Minnesota can well afford to spend money for agricultural research in this manner, not only on account of the results already seen and felt in the preliminary work, but also in a direct manner, the influence that will be spread throughout the state to correct the wrong ideas of the importance of the work of the school of agriculture, and last but not least the opportunities given to the agricultural teacher and experimenter of obtaining new problems to solve and to expand its field of practical usefulness.

The Chair: The next topic will be "The Value, Cost and Preparation of Food," by Miss Agnes C. Erickson of Hector, Minnesota. Ladies and gentlemen, it is my pleasure to introduce to you Miss Erickson.

VALUE, COST AND PREPARATION OF FOOD.

Food is that which, taken into the body, repairs waste, forms tissue, or yields energy in the form of heat and muscular power.

The relation between the value, the cost and the preparation of food is a subject worthy of study.

The value of food is determined by its power to support life, measured by the amount of actual nutrients furnished and number of heat calories produced. A calorie is the amount of heat required to raise a kilogram of water 1 degree C.

Cost of food is determined by the market supply and demand and is measured in dollars and cents. The manner of its preparation modifies the real value of food, as well as its actual cost to the family, and is measured by the knowledge and skill of the cook.

The maxim that the dearest is the cheapest does not apply to foods. The best food in the sense of that which is the finest in appearance, which has the best flavor, and which can be sold at the highest price, is not always the cheapest.

The cheapest food is that which furnishes the largest amount of nutrients in the right proportion and for the least cost, and which has required little capital or labor to produce.

Wheat flour is cheap simply because it can be prepared in quantity on the spot where it is grown and kept in storage or carried the world around without any appreciable deterioration. Fresh fruits are dear because they will not endure this handling or storage.

The larger the income the smaller is the percentage of cost of subsistence. The smaller the income the larger the per cent which must be spent for food. For example, a family of five with an income of $600 will spend about 75 per cent for subsistence, while another family of the same size, with an income of $3,000 will spend less than 20 per cent for subsistence.

The average income of the family in this country is probably less than $600. Therefore we may see how important is knowledge of the subject of food which absorbs so large a per cent of the income and leaves so little to be spent for comfort, culture and philanthropy.

Mrs. Richard, of the Boston Institute of Technology, says: "Just as in furnishing a house, it is not the money spent, but the good taste in the arrangement of the whole, as well as in the choice of the individual articles, so in food for the table, it is not the amount of money spent but the sort of material purchased and the way it is treated after it is purchased, which determines the effectiveness of the expenditure."

And also "I believe that man's efficiency in this world, if not his happiness in the next, is mainly due to the precautions he takes to use suitable food and to avoid dangerous combinations."

The four tests for good food are—Chemical: What percentage of each nutritive constituent does the food contain?

Physical: How much polintial energy is it capable of yielding?

Physiological: Is it easily digested and to what extent is it absorbed?

Economic: Are the nutritive constituents which the food contains obtained at a reasonable cost?

Bullock says: "There are five ways in which fully one-fifth the money expended for food is absolutely wasted, while the expenditure often fails to provide adequate nutriments."

In the following manner ten per cent of the income is squandered in needlessly expensive material, providing little nutrition: a great deal thrown away; bad preparation; failure to select rightly according to season, and badly constructed ovens.

Good judgment as to the harmony of the meal, the amount prepared, the blend of the flavor, as to the right appetizers and good humor and cheerful conversation, with the most attractive setting and perfect serving will cut down the cost of any table one-half.

The value of foods for fulfilling different purposes should be recognized and therefore individuals should be supplied with foods suitable for their age and occupation, and also that which is suitable for the season.

An individual doing hard manual labor requires food that will furnish nutrients for more heat and energy than a growing child who needs food that will furnish nutrients for growth and repair.

A diet suitable for winter, containing a large amount of heat-producing nutrients, would be very undesirable for summer, when heat-producing nutrients, such as fat, should be avoided as much as possible.

Knowledge, unless applied, is of little value. Studying about the value and cost of foods would be of little value unless we applied that knowledge.

The nutritive value of a food depends chiefly upon the amounts and proportion of nutrients which it contains, but also very greatly upon its palatability and digestability. These three factors are governed to a great extent by the preparation of the food in the kitchen.

This may be illustrated by the fact that if a piece of meat be boiled rapidly it will become tough and the nutrients will be less digestable than if boiled with a slow heat.

Also the cheaper cuts of meats, such as the round, are as nutritious and can, by proper methods of cooking, be made as palatable and appetizing as the more expensive cuts, such as the loin.

Another illustration is in the case of starchy foods, such as vegetables and cereals, which are made more soluble by long cooking at a moderate temperature, or by heat high enough to dextrinize a portion of the starch as in the brown crust of bread.

Fats alone are easily digested, but in the ordinary method of frying at a high temperature they not only become decomposed themselves, and therefore injurious, but they also prevent the necessary action of heat and the digestive ferments upon the starchy materials with which the fats are combined. It is this which causes the harmful character of pastry.

In order to stimulate the appetite and thus aid in digestion, foods must be prepared in such a way that they are palatable. This is accomplished to a great extent by the art of producing the right flavors.

The flavors produced by cooking correctly done will be delicate and unobtrusive, while those obtained from the addition of condiments and spices are often harmful, as they act as stimulants and are liable to be used to excess.

Usually, except for broiled meats, a low heat applied for a long time, with the use of closed cooking vessels, develops the best flavors, while quick cooking, which necessitates a high temperature, robs the products of nature's flavors.

Cooking has become an art founded on the laws of chemical action, worthy the attention of intelligent and learned women. When this science and this art takes the place besides other sciences and other arts, one crying need of the world will be satisfied.

A learned French judge said to three of the most distinguished men of science, the mathematician Laplace, the chemists Chaptol and Berthollet: "I regard the discovery of a dish far more important than the discovery of a star, for we already have stars enough, but we never can have too many dishes, and I shall not regard the sciences as sufficiently honored or adequately represented amongst us until I see a cook in the first class of the French Institute."

The Chair: The next subject is "Minnesota Students at the International Judging Contest," by Robert Daily of Flandreau, S. D.

MINNESOTA STUDENTS AT THE INTERNATIONAL JUDGING CONTEST.

In the year of 1900, J. A. Spoor, a man interested in the work done by the agricultural colleges as well as in the improvement of live stock, offered what is known as the Spoor Trophy (a bronze statute of a bull valued at $800), to be won by the team of three students sent forward by one agricultural college, which made the highest aggregate standing in judging all classes of live stock. It was won that year by Illinois, in 1901 by Iowa, and in 1902 by Iowa. In addition to this $500 in cash prizes was offered by prominent stockmen of Chicago. Minnesota, however, did not enter the contest until the year 1902, and considering the limited time to prepare it must be admitted that the team did remarkably well.

The main feature of a contest is its great educational value in interesting young men in the study and improvement of our various breeds of live stock; by the association of the students with the great live stock world outside; by giving the students an opportunity of mingling with the breeders and gaining from their practical experience; it gives them a much wider field of observation than can be furnished by any agricultural college. The massing of so many cattle, sheep, horses, swine and their products, at one time and place, exhibits so many different types, so much excellence, and even inferiority, that he "who runs may read" his lesson aright. In fact it is the experience of a generation, boiled down and concentrated. The agricultural college, no matter what its endowment, can at best furnish only a few of the very best types of the great breeds. It puts before the college as close an approximation as possible to the ideal animal. In other words, plants in their minds the ideal. The students need to get out among stock of the various breeds and see the actual production of the breeders' art, not in limited numbers but in very large numbers and many types of the various breeds of each kind of live stock kept on the farm.

Another object of the contest is to test the thoroughness and relative merit of courses given in stock judging at the various colleges, and here again Minnesota proved herself equal to the other colleges, although handicapped by having a three months' shorter school year. The incentive to quick and accurate work in judging inspired by this contest is one strong reason for perpetuating it.

Training for the contest began on the 27th day of October, when about thirty from the regular class presented themselves for special work in judging. They were under the instruction of Professor Boss, who, by his untiring and unceasing effort, proved himself equal to the occasion, and much credit is due him for the success attained at Chicago. As the time during the day was taken up with the regular classes, a morning class was held from 7:30 to 8:15, until the 21st day of November. The work for the most part consisted in the placing and scoring of animals at the school, but aside from this visits were made to a few of the best stock farms of Minnesota. These were H. F. Brown's stock farm, where one afternoon was spent in judging Shorthorn cattle; N. P. Clarke's farm at St. Cloud, where two days were profitably spent in judging some of the best specimens of each of the breeds of Shornhorn and Galloway cattle and Clydesdale horses. This was a great show in itself, as some of the best animals of England, Scotland and the United States are maintained there. But few people realize the great work being done for the improvement of live stock on this Minnesota stock farm. These, with trip to De Lancey's Percheron horse stock farm at Northfield, completed the training for the contest. The students were asked to correctly place three classes each of swine, sheep, cattle and horses, and to write reasons substantiating their judgment. Fifty-five points were allowed for correct placing and forty-five for reasons. Each student worked individually and was allowed twenty-five minutes to place the animals and give reasons for same in each of the classes. The papers were received and examined by the exposition judges. Because of the variations possible in the placing of animals, a basis of marking permitting twelve variations in placing won credit for the student. As all the show rings were occupied by the exposition judges, no place having been provided for the students, they were compelled to judge in narrow feed alleys out of doors, and even at night. On the morning of December 1st, Superintendent Lovejoy called the students together, at which time they were given numbers to be designated by throughout the contest, and organized into three groups and set to work judging swine. Three classes of swine were being judged at one time to hasten the work, and so as not to interfere with one another. From swine judging the students were to pass judgment on a class each of Shropshire, Cotswold and grade sheep, after which came the most difficult class of all to judge, that of seven harness horses, consisting of Belgian, Clydesdale and Percheron Drafts, because not only type, scale and quality were to be considered, but action, the most important part of all and the most difficult to determine. After the horses came the judging of cattle. The character of the classes selected for the students to judge was calculated to test their knowledge thoroughly—a class each of Angus, Herefords and Shorthorns—then the judging closed with the rating of five Percheron and five Shire horses.

The results of the contest are as follows: Iowa won the trophy with a total score of 2,402 points—Minnesota being but 14 points behind. Wisconsin came third, Ontario fourth and Michigan fifth. Of the cash prizes offered Minnesota received a larger portion than any of the other colleges, winning $170; Iowa, $160; Ontario, $105; Wisconsin, $103.

The value of the training does not lie in the honor or money won at Chicago, however, but the thorough training given these students and fitting them for better stockmen than would have been possible without this training. The general result of all this is not merely to more fully equip the wide awake student and make him a broader man, but to build up the various colleges in the confidence of the great mass of farmers who visit this show or who read the reports in their homes; and this after all is what the college wants. A large endowment will not alone make an agricultural college. It must have students, and these students will mainly come from the farms, but they will not come unless the farmer, who at least furnishes a part of the money, has confidence that in sending his sons and daughters to an agricultural school he is making a wise investment of his funds. Colleges, like agricultural newspapers, are founded mainly on the confidence of the public. The farmers must believe in them, and when the farmers of any state believe in its agricultural college there will be no trouble in securing from the state the necessary funds to bring it to the highest point of efficiency.

The judging contest is not only beneficial to those who take part, but to all students who by attending the show are given the broadest sort of an education possible. The tendency of many lines of education is to narrowness, to make specialists wonderfully shrewd and smart in some one thing, but lacking in all other things. The farmer must be a broad-minded man. The farmer's teacher in one sense must be a specialist. He must know his business well, but he must also be able to see its relation to all other lines of business, to take broad views of things, and thus help those farmers with whom he comes in contact to be broad minded and accurate in their own fields, as well as he.

One point brought out very plainly in the last contest was the better work done by the students than by those who had not had the training. I trust you will exert your utmost influence in furthering education that lies so near the foundation of successful farming. A pavilion where a course in live stock judging can be conducted is badly needed at the School of Agriculture. You cannot expect a boy or man to stand out on the frozen ground and score an animal, and without the score card you cannot lay the foundation for a good judge of stock. I do not believe there is any way in which our legislature can do more direct good to the stockmen of the Northwest than by being liberal in their appropriations for buildings and appliances where this kind of instruction can be carried on to the very best advantage.

The Chair: The next subject, "Meat from Birth to Block," will be treated by Mr. D. A. Gaumnitz of St. Cloud, Minn., who is a student of the College of Agriculture. Ladies and gentlemen, this is Mr. Gaumnitz.

MEAT FROM BIRTH TO BLOCK.

D. A. GAUMNITZ, ST. CLOUD, MINN.

Ladies and Gentlemen: My subject for this evening is "Meat from Birth to Block." This subject is a comparatively large one, and with the limited amount of time which I have I shall dwell very lightly upon the feeding and the breeding of the animal, and shall emphasize more fully the basis for judging the animal by the verification of the score card.

Before proceeding with the subject it might be well to say a word or two in explanation of the score cards and what the block test is. The score cards—some of you have them—are of two kinds, one for the dressed carcass and one for judging the animal alive, but it might be said that it is a device by which all the parts of the animal are called to one's mind. Opposite each cut, or part of the animal, there is what is supposed to be a perfect score, and in judging the animal one scores accordingly. For instance, if he thinks the round is worth full credit, it is perfect, and the mark opposite that point is ten; if you think it is a little deficient, you mark it nine or eight, or whatever you think it is, and after you have scored up an animal of this kind you put away the score card, and you have left your opinion in black and white, and later, when the animal is tested on the block, you have something to refer to; you know just what your opinion was at that time, and after the animal is cut up you can verify your judgment. Now, then, what is the block test? The block test is simply getting at the intrinsic value of the different cuts of meat. In all cases, of course, from this intrinsic value we work out the percentages in such a way that we can verify our score cards.

Now, let us leave this explanation, and return to our subject. First, why should the score cards be verified? Why is it necessary to study animals in detail? Haven't we men who are well enough informed upon this subject, along the line of feeding and breeding, so they can impart this knowledge to the people throughout the country? Have we any men well enough informed along these lines so they can give instructions to students in an intelligent up-to-date manner? They can hardly answer this question in the affirmative, and why can they not answer it in the affirmative? Simply for this reason, that judging from the past, as much progress has not been made along these lines as we should hope there should have been. Take, for instance, the line of breeding; since the work done by some of our early workers, what has been done along the lines of breeding? The same thing may be said in the matter of feeding; aside from some of the common-sense principles of feeding, and the conclusions which you may readily draw, what is there that has been done along this line?. Of course I do not mean to say that nothing has been done along these lines; men have been progressing, but I do say that I do not believe they have been progressing as rapidly as they should. Take the men who are the leaders in the line of breeding and feeding; the men who are leaders along educational lines throughout the country; I will venture to say that I don't believe that more than perhaps one in a hundred has ever taken an animal, judged it alive, put down his judgment, followed the animal into the slaughter house, slaughtered the animal, followed it right through, cut up the animal, kept track of all the cuts, and followed it to the table and gave it a thorough test and tested the animal in a way that would be impartial—that is, tested the animal without knowing anything about it. Now, then, with such little progress as has been made, only a few of these men have done work of this kind and have gotten down to the real foundation of the work. How can they expect to know just what they are about, and how can they be expected to give instruction to students, and how can students be expected to get these instructions when they have no place where it is taught? I rejoice with Minnesota to know that she has an institution in which work or training along this line is given, in the course of dressing and curing meats and in the stock judging work. In this line of work the animals are brought before the students; they have these score cards; you will notice some are for judging the animals alive, others for judging the animals dressed. The animals are judged alive; the students pass their judgment and mark it down. They perhaps will have two or three or four or more animals in the closed room at the time. They make comparisons of those animals; they judge of the different parts of the different animals; the student takes the score card and notes after every part how he bases his opinion. He judges everything; he takes time; looks at the animals which are before him in all their parts, considers them, and if possible tries to form a picture of the animal in his mind. Then the animals are taken to the slaughter house and slaughtered. After they are slaughtered their carcass is judged again; after they are judged this time, they are cooled down, then cut up on the block, and block records are made—per cents of the marketable cuts to the live weight; understand, not to the dressed weight, but to the live weight, and it is for this reason: we know there are different types of animals, and different types of animals will dress different per cents of meats. In this work, the variation comes in the dressing. The cuts will always dress out nearly the same; that is, take the round for instance; the round of the different types of animals will usually bear the same relation to the carcass, but to the live weight—there is where the trick comes—it always varies. Therefore in our cutting up on the block we must base our percentages upon the live weight. But the investigation is not stoppped here. They continue it. The meat from the different animals is taken and cooked. The cooking is watched to see how the different cuts cook. For instance, suppose you have some beef grassers and you are cooking them in comparison with some well finished animals. Things of that kind will be noticed in the cooking. Then it is taken to the table and tested in an impartial way, and then you have the facts of the thing, and these records which have been piling up for some time are something which are really surprising, the amount of good that has come out of it; indeed they are more than satisfactory.

I perhaps can illustrate better what I mean by this verification of the score card by giving an incident which occurred last winter. There were about one hundred students in the class, as I remember, when two Shorthorn steers were brought before them; one was a roan Shorthorn, the other a white one. After the boys had scored the animals in full, the person who had inaugurated the system of judging the animals alive and then cutting them up, called for responsive hands as to who had placed the white animal first. Practically all of the students responded to the call for the white steer; one or two of the boys did not respond, and the one in charge of the class did not agree with the ninety-eight or ninety-nine boys who believed that the white steer was the best. Of course it was up to the professor to say why he placed the roan steer ahead, and this he did in a few words; but the boys objected; they claimed the animal they placed first was the one the live stock men of the country were seeking. Indeed I think if those two animals had been shown throughout the country that in ninety-nine cases out of 100 the white animal would have been placed first. So of course with two strong opinions in this class, they awaited the outcome at the block with much anxiety. About a week afterward the animals were killed, and after they were cooled and were cut up and the different parts were cut; for instance, they cut out the prime ribs and the shoulders and the neck pieces and so on, cut up all the different parts of steak, sirloin, porterhouse, round and so on. Some animals will carry an excessive amount of fat, and that is cut off and put into the usual marketable form, the bones are cut out, and the meat put into condition fit for the market. Then all the different cuts are figured out; that is the per cent of these cuts to the live weight was figured out. The tests were carried further; the meat was cooked, taken to the table and tested, and there was very little difference found as far as the meat was concerned, but when the class got the figures and began to make comparisons, what did they find? They found that in all the high-priced cuts, the round, the rump, the sirloin and porterhouse steaks, the sirloin roasts, the prime ribs, in these cuts the roan steer was superior, but in such cuts as the kidney fat, tallow, you know where that goes; the neck, that is stew; the flank, that is more stew; and the hock, of course it is one of the cheaper kinds of meats; the shoulder and the cross-ribs, and so on, the white steer ran ahead. Now, then, the professor's opinion was confirmed at once; the boys saw at once just where the trouble came; they saw what they were after. It was a lesson to them; it wasn't what someone else told them; it was a foundation; there is the beginning of that foundation training which we must have if we are going to progress.

Now, then, just yesterday, to show another instance of the way the boys work: We had four hogs this time. They scored all those up; every boy had four score cards, taking a score card for every hog. Every hog was numbered, and they passed their opinions, and those were handed in. Now, the hogs will be killed tomorrow, and records will be kept and the boys will judge them—keep records just the same as for the beef. After the animals are killed and allowed to cool, the animals will be cut up, and then they will again verify their opinions.

Now, in addition to the training of this kind, the boys get the training of cutting up the animals, and when they are cutting up the animals and making the records, they go over the different cuts so much that they get the relation of these cuts, which are the high priced and which the cheap cuts, and when they judge an animal they know what to look for. When they want a good rib cut in an animal, or a good prime rib of beef, they get at the percentage of the different cuts to the live weight; they also get at the percentage which different animals will cut out. Thus it will enable him to do business with buyers in better shape. He will know just what he can do. He will know how much he can get out of an animal. He will know if an animal will sell better dressed than live weight; he will know the price of the cuts that predominate and he can work out the real value of that animal alive. If you go to a wholesale house, they can figure out very quickly what they can sell you a prime rib out of a given carcass for, simply because they know what part of the carcass is prime rib. Well, that is what the boys are getting at in this case. When the boys have finished scoring, done work of this kind in one of these institutions, and this kind of work spreads over the country, becomes prevalent so they are doing it everywhere, we may expect that the work will be based upon a more firm foundation; instead of starting two or three rounds up in the ladder, they will start at the foundation and then will begin to work up. All the animals selected will be selected and fed with the idea of meeting the demands of the people, the wants of the block. When they are feeding certain kinds of food and the animals are gone over in this way, they will know what the effect of that kind of food is, and we may expect that more of this valuable work will be done, and with more valuable work of this kind, we will have better trained men, better trained students, and we may expect great progress in the future of our country.

The Chair: The next subject is "The Selection of Textile Fabrics for Household Use." This will be given by Miss Edith Staples, a student at the State School of Agriculture, and now an assistant to Mrs. Blair in the sewing department.

THE SELECTION OF TEXTILE FABRICS FOR HOUSEHOLD USE.

In the good old times our grandmothers began when but little girls to fill a chest with household linen for their own future homes. Everything was made by their own hands, spun, woven, and made into garments and articles for the household. That was the contribution, and it was a valuable one, of the woman to her home.

But the skill and ability of the woman of today must be turned in another direction. What she must bring to her home is knowledge of how to select fabrics for household use; she must know how to make the wisest expenditure of money. She must choose fabrics with due regard to durability and suitability. She must study the different weaves in order to find out which will wear well and launder nicely. This is her contribution, and it is a valuable one, to the economy of the home.

The textile art was invented and developed by savage women. The textile art is divided into two classes—basketry and weaving. Every savage tribe has some form of basketry, and usually it is distinctive in shapes and coloring and materials used. Some of the baskets were sewed, but the woven baskets were first made in the plain weave, that is, by passing woof threads over and under each warp thread and with every other row alike. This is the same effect we have in our common bagging or cotton cloth. One step from this the weaver overlapped two warp threads. The same weave we now find in our very finest Irish linens. These savage women at first wove fabrics with their hands without the aid of any form of machinery.

The spindle was soon used to twist the yarn. It represents the same principle as the spinning wheel. The first spindles were nearly straight sticks which they twirled as much as desired. Then they stretched the warp threads on the ground and fastened them at each end with a stout stick and the woof threads were worked under and over with the hands and laid in place with a wooden comb. The mats, tents and garments were made the size and shape desired and were never cut.

Many crude looms of the very simplest form, but from which the most intricate might have grown, have been found in use among the savage women.

By using different materials in their natural colors the textiles were made very beautiful. The savage women discovered natural dyes which have never been surpassed.

To produce the different figures and designs was simply a matter of counting, which shows that the savage woman could count. Stitches were skipped at regular intervals and different colors were worked in.

Up to the invention of machinery the textile art belonged to women. They took from the fields and animals the wool and fibres and prepared, spun and wove them, and so laid the foundation of the large factories we have at the present time, where cotton, flax, silk and wool are manufactured.

For her table and for toweling the well taught women of today will usually select linen. Ireland and Scotland furnish us the most of our linens, while Germany ranks next. Our best linens come from Belfast. The single faced linens are a single weave, but the double Damask is a twilled weave. That is over two and under two threads, thus bringing the same number of warp threads on each side. In selecting durable table linen we should choose a double faced twilled linen with threads of uniform size, which is not too heavy. The heavy linen wears out in laundering. But one should not choose linen with too much dressing in it. This is often used to hide defects which will show all too plainly the first time the linen is laundered. If, when one rubs a piece of linen with the fingers, it roughs up it is because some short fibres are used instead of fibres of uniform length. Such linen will not wear well and when laundered the short fibres will show very plainly.

When selecting toweling we want linen that will absorb moisture readily —a coarse, loose weave with threads of uniform size will be the most satisfactory. Again, the twilled weave will be found the most durable.

This, indeed, is true of all materials—the twilled weave always wears better than the plain or smooth weave. With the thin linens intended for dress goods, the more sheer it is the better it will launder.

We will perhaps all agree that linen is best for bedding and clothing, but we find that cotton is in almost universal use. Almost all of our cotton fabrics are manufactured in the United States, although some are imported from Manchester, England. In cotton as in linen the threads must be uniform and not too closely woven. The threads may easily be seen by holding the materials in the light. Heavy fabrics in cotton do not wear so well as the lighter in weight. We cannot leave the cotton and linen materials without a word to the shirt waist girl. For a durable shirt waist she wants one that will launder nicely. The white waists are the most satisfactory because colored ones are almost sure to fade. We find that the madras cloth is the best for everyday wear, because it looks better every time it is laundered.

Linen, especially the imported linen, makes beautiful shirt waists, and pique is also good. Mercerized cotton has just come into use, and while more expensive, it launders nicely and is nearly as pretty as silk. We hear so many complain that the linen and cotton fabrics do not now wear as they used to. The fault is not in the weaving but in the dyeing and bleaching. Chemicals which burn the threads are used in both processes. If we could only go back to our grandmothers' way of bleaching in the sun and the savage woman's dyeing with vegetable dyes the materials would wear much better. The finest and most beautiful Irish linens are bleached in the sun.

For bedding, wool blankets are better than cotton quilts. They are lighter in weight and it is more healthful to sleep under light weight clothing. Blankets are made in a peculiar weave which is so loose that it allows a free circulation of air and yet the interstices make a good nonconductor of heat. It makes a very warm covering. It is much more difficult to launder cotton quilts than blankets, the cotton in quilts becoming matted. To detect shoddy woolen material look for the short fibres; they are easily detected by the rough appearance of the material.

For ordinary wear the most serviceable dresses are made of mohair. They wear well and are made in good colors and are light in weight.

The strongest and most valuable of textile fabrics is silk. Seventy-five per cent of the silk used in the United States is manufactured here. The duty on imported silk is so high that comparatively little is imported. In Lyons, France, are woven the most elegant silks, selling sometimes for seventy dollars a yard. The best wearing silks are made on hand looms. We hear our grandmothers telling of the silk dresses which would stand alone, but nowadays we find the soft, twilled silks wear the best. Surah and foulard are very durable. The pongee silk is made on a hand loom. In the natural color it can be laundered and wears splendidly.

Another problem for the woman of today is whether clothing made from vegetable fibre is more healthful than that made from animal fibre. In Shakespeare we find the quotation, "I will go woolward for penance," and in the Bible many allusions to "purple and fine linen" show it was held in great esteem. But linen to be healthful must be porous and very loosely woven so as to allow the free circulation of air.

Silk is between wool and linen in density.

Fabrics of linen and cotton can be easily and thoroughly laundered, which are points in their favor.

There are many important points involved in the selection of textile fabrics for household use. The interests of the family are directly and strongly affected by the hygienic value and the durability of fabrics as well as by their cost. When these are judged by the expert knowledge of its mistress then her knowledge becomes a valuable contribution to the resources of the home.

AGRICULTURE IN RURAL SCHOOLS.

BY COATES P. BULL.

The subject of education in our rural districts, though not one of recent origin or one of unrecognized importance, is one of the problems of the day which demands immediate solution. Much of the effort toward developing educational systems has been expended along the lines of so-called higher education and the advance of the city school standards. Free swing has been allowed the school and scholar of our rural world, until it became a recognized fact that the rural student was not up to the required standard, if entrance to anything higher than the country school was desired.

It is a well recognized fact that the progress of a country is marked by the prosperity of the farming population. Therefore, it is at once obvious that the farmer should have not merely a moderate education, but he should be thoroughly educated in the line of business in which he is engaged. In times past he has been deprived of an opportunity to get such an education, and even yet the chance is open to comparatively few.

The time is past when we need to put so much stress upon specialists and the so-called higher education, but the time is now ripe for systems of education for the common people which represent the greater portion of our country's population. Educate the majority and the general standard of our nation will be materially improved. In the schools of our most excellent city systems students are trained along lines which will be of benefit to them in after life. Full recognition is given the fact that to be a man among men in any line of business a person must be thoroughly trained in both the science and the arts of business. This is no less true of farming than of any mercantile or other business.

Heretofore, the farm boy seeking an education beyond that furnished by the common school was forced to attend the city schools, which, though adequate for their purpose, were unable to give the training needed for a farming business and tended to divert the interest from the farm rather than toward it. In recent years our School of Agriculture has been the goal and educational ideal of our country school student and its growth has been very flattering. In the year 1888, the first year of the school, the enrollment was forty-seven. From that time on the attendance has steadily increased until today we have an enrollment of 475. These figures are not only very flattering, but show a demand and appreciation for agricultural training. In all of the schools of the state there are, approximately, 414,671 pupils. Comparing this figure with this year's agricultural school attendance, it is seen that only about one in 1,200 of the pupils takes up the work in agriculture, which is a very small percentage compared with the importance of the subject. From recent statistics, it is found that there are about 215,415 in the common district schools, and by comparing this with the agricultural school attendance we find that about one in 500 gets an agricultural education. Is not this an alarmingly small amount when fifty per cent of our state's population is engaged in rural pursuits?

From these figures it is apparent that our present agricultural teaching does not reach the great mass of pupils needing training in agricultural lines. Recognizing this fact, a movement is now being made to introduce agriculture into the common schools of our state. This may seem, at first, absurd, but everything must be given a start, which, though perhaps not on a permanent basis, will lead to something better. The main idea in all teaching, whether primary, secondary or for higher education, is to get the scholar to think and work problems for himself. By introducing agricultural training into our common schools it is hoped to interest the farm boys and girls in the everyday life about them and to get them to asking the whys and wherefores of nature's doings. The seed, for example, will germinate and produce a plant if placed in the ground under certain conditions. But what are these conditions? We say right away, heat, mosture and air; but the pupil who has not had his attention called to it thinks little or nothing about the reasons for germination, though perhaps he has planted hundreds of seeds. Again, we see that two plants growing side by side are unequal, yet to all appearances they have equal advantages; one seems to be much more vigorous than the other. If we plant two seeds, one plump and well matured, and the other shrunken and immature, we find that the one will germinate quicker and will produce a fifty per cent better plant than will the other. Thus it may be shown that the vitality of a seed has much to do with the strength and vigor of the plants. These are only two of the many ways in which the pupil may be brought in contact with the happenings of nature, but they go to show that there is a place and room for agriculture in our rural schools and that the movement toward its introduction is not without its possibilities. Other illustrations may be made to show the reason for plowing and cultivating and of capillarity; still others show the reasons for silks and tassels on the cornstalk and why the silks are farther down on the stalk, and so on.

Our legislature, at its last session, provided that $4,000 be expended, under the direction of the Division of Agriculture, University of Minnesota, in introducing agriculture into the common schools. Accordingly, there has been prepared a bulletin containing a series of 235 exercises, with eighty illustrations. These exercises can be worked out, with the material in hand, in any district schoolhouse. They include problems dealing in all phases of farm life: Horticulture, dairying, animal husbandry, cooking, etc. When once carried out they will give the student an idea not only of the things pertaining directly to the subject, but will make him think about everything that comes to his notice. And with the thought will come a wonder in regard to the causes of all these happenings. Some, perhaps, will be found investigating for themselves. In this way an interest will be aroused and a desire for further enlightenment, and the final outcome will be the uplifting or elevating of the standard of rural living, and the nation will be proportionately benefited.

Minnesota is an agricultural state. It always has been and always will be. Its soil is especially adapted to diversified farming, and its people are destined to become strong factors in civil and social life. Fully one-half of its population will always be engaged in agricultural pursuits. Then, why not introduce agriculture into our common schools and begin at once educating men and women for their choice of vocations?

Mr. E. D. Childs was at this point called upon to address the meeting, and responded as follows:

Mr. Childs: Mr. President, Ladies and Gentlemen—After listening to what we have had presented before us, and from the class of people who have entertained us, I believe that no man or woman in this audience would not be proud if they could say that these young ladies and young gentlemen were their own children. And while we may not properly make that claim, we can feel a just pride that they are among our citizens and children of our neighbors—products, if I may use the word, of our educational institutions, which specifically, and more properly than anything else, belongs to the farming community of this country, which, as Mr. James J. Hill has said, "is after all the true basis of the prosperity of this country."

From these young men and women we have learned the needs of the people of the Red River Valley; how to prepare the soil and to judge of the cost of producing or value of an acre of grain or other crop, and all these things, which twenty-five years ago in this state, not one of the intelligent families of the state could have brought a son or daughter here that could have done it. not one.

Our farmers complain of a great many things. First, they complain that their sons and daughters will not stay on the farm; that as soon as they get some little education they go out to the cities and they leave them alone. They complain that the cost of the products by hired help is so great that their farms are unprofitable. Now, why is that? What is the reason for that? One reason is because they have not learned what these young men and young women are learning and have learned as to the cost of production on their farms and how to gauge their expenses with their incomes. Many a man gets up in the morning before daylight, and he hustles around and loads up a load of produce and hauls it off to market and sells it for what he can get without one moment's reflection as to whether that market is overstock at the time he takes it there or not, and then if he gets a low price he goes home sour and cross, and whips his children and scolds his wife because they haven't done more while he was gone. (Laughter.)

On every hand we find organizations; we find a beef trust; we find a cattle trust. We say: "The railroad companies are merging and everybody is doing something." Now, what are the farmers doing? What means are you taking to counteract these things? Why, some man comes out just before election time and he says he is in favor of passing an act to restrain these people from doing these things, and he is going to vote in your interest, but just as soon as he is elected he finds there isn't any law that can be enacted that will prevent men from controlling their own affairs in a legal and proper way. Now, what are you going to do? You have to meet these things with a like organization. You have got to educate your children; you have got to become educated yourself; study the law of supply and demand; study the markets; keep your own statistics; find out how much is produced in the country; find out how many hours the other people of this country—the mechanic, the blacksmith, the shoemaker, the carpenter, the stone mason—how many hours they work, and then don't try to make yourself rich by working as many again hours as they do. Be content with working the same hours, and let your children have the same hours for rest and recreation and study that the stone mason has, that the blacksmith has. that the railroad man has and that other people have, and then your children won't run away from the farm. Give them the chance that other people have, and send them to your schools. When a man comes to you and tells you he will pass an act in the legislature to restrain these trusts tell him you would rather he would vote for a bill to appropriate some money to enlarge our agricultural educational institutions. (Cries of "Good," and applause.) We will take care of the trusts if you will only give us a little more intelligence in our upper stories. (Further applause.) That is what you want. You will never prosper until you do it. The old saying that "knowledge is power" is more appropriate to the farm and the farming classes and the agricultural interests of this country than ever. Now is the time you need it. If you don't have intelligence, if you don't meet these trusts and organizations with organizations, you might just as well lay down. If you cannot tell when to take a drove of cattle to market, or if you cannot go into your yard and pick out the cattle that will pay you to feed, and when you have fed them, if you cannot tell when you get them to market what they are worth, you will always be subject to somebody else's judgment, and you will have to take what they give you, but when a farmer, through his system of organization and by educating his sons and daughters, can have the intelligence to organize and meet these other organizations on an equal footing, you can make them do the fair thing, or you can make the grass grow in the streets of every city in this land. (Cries of "Good, Good," and applause.)

The Chair: Mr. Childs, I am afraid it is nearly time for our car.

Mr. Childs: I knew if he got me up here he would have to choke me off.

Mr. Hays: I didn't hear all this speaker has said, have heard only a part of it, but just at this point I want to tell something of an institution that is started in this state, called, I believe, "The Minnesota Farmers' Club," an organization, or rather several organizations in each county, where these young men in the agricultural school can learn to touch shoulder to shoulder, especially in a literary way. These young men are organizing in this state, and they are going to be a power. (Applause.)

Dean Liggett: I am sorry that much more could not be said, but the time is up for our people to take the car, and they cannot afford to miss it.

Adjournment.

MORNING SESSION.

Thursday, January 15th, 9:30 o'clock.

President C. M. Cosgrove presiding.

The Chair: The first thing on the programme seems to be an address by the president. I know of no reason why I should take up much of your time, and I will not occupy it long.

Secretary Randall: I would suggest that those in the back part of the room come up and take these chairs. You can hear better, and you will make it easier for the president and others who are to speak.

PRESIDENT'S ADDRESS TO THE MINNESOTA STATE AGRICULTURAL SOCIETY.

Gentlemen of the State Agricultural Society: You will have before you the reports of your secretary and treasurer, which state the progress of the work during the last year, hence it is not necessary that you have further detail in that line. Financially, the last year was a greater success than any of us had hoped, the gate receipts being about twenty-five per cent higher than ever before; the increase being nearly as large an amount as the total receipts in the early nineties. They undoubtedly would have been twenty-five per cent greater, had the street railway been able to handle the people. The facilities were much better than in previous years, still far behind actual needs. A cross town line from Selby, or even University avenue, is the only thing that offers any great relief; and even then it is doubtful if they can begin to handle the crowd with any degree of comfort. Our gate receipts exceed those of any other state fair in the Union, including Iowa and Illinois, both of which have steam cars in addition to electric lines. Your board made every effort to get steam car service last year, but failed; and whilst we have assurance from the electric managers that they will give us greatly improved service the coming year, there is no doubt but that steam is the only satisfactory way to handle such immense crowds. The railroads entering the cities gave greatly improved service last year. The Omaha having ample rolling stock, so carefully looked after its passengers that no train left the Union Depot until all were seated; and we have reason to believe that the other railroads took equal care of their patrons.

The Commercial Club of each city furnished an information bureau, through which people could find lodgings, and the visitors seemed to be well looked after. In fact it would seem that the most urgent need at present is a much better equipment of the grounds; and this can only be gained through the legislature. The State of Minnesota now owns this plant of more than a million value, and has never put into it to exceed $150,000. The site of 200 acres, worth one-half million, was donated by Ramsey county; the state then put $100,000 in frame buildings, which are now seventeen or eighteen years old, and constantly in need of repair. From that time until two years ago, no further appropriations for buildings were made. At that time $25,000 was appropriated for an agricultural and horticultural hall. This is the only building on the grounds which is at all suitable for the purpose, and even this could easily be filled with either the agricultural or the horticultural exhibit. The buildings in the Illinois State Fair Grounds have cost over one-half a million dollars, and if this society desires to keep growing we must have an amphitheater in which to exhibit live stock, costing $100,000, a manufacturers' building, costing not less than $50,000, a fish exhibit building, at not less than $15,000, an apiary, not less than $10,000, buildings for agricultural and machinery, for at least $50,000. We believe that the legislature should be asked to appropriate this amount at its present session. This is the only self-supporting institution owned by the state and should receive ample equipment. To be sure there is on hand a balance of some $55,000, but of this $20,000 is reserved by the board to pay premiums in case of a rainy week. Ten thousand dollars is set aside to build sheds to partly cover agricultural machinery exhibits; $10,000 for cement sidewalks and grading; $5,000 for toilet rooms and sewerage and the small balance to be used before September in painting, shingling, etc. Since the close of the fair a large hog barn has been built, costing $5,000 or $6,000, and many smaller improvements made. You can readily see that $25,000 to $50,000 surplus soon disappears in repairs.

You gentlemen here can say whether you shall have this appropriation, and should you each say to your member in legislature "we must have it," you would get it. With these additions and the continued support of the twin cities and the farmers, the attendance can easily be doubled in the next three years, provided, always, that transportation to the grounds is improved and we continue to have the good will and support of the press of the Twin Cities, and the entire state, and, for that matter, adjoining states. They, through their columns, have done more to add to the educational and financial success of the fair than all other sources combined, and this, too, with practically no remuneration.

As to the success of the fair other than financial we feel that great results have been accomplished. The night entertainment has not only added credit but has drawn people to the grounds, who, coming for amusement only, have also received useful information. The stock sales inaugurated three years ago have continued successful and have done more to improve the stock in the Northwest than could have been done in ten times the period in any other way. Every department has been full to overflowing, and we feel that as an educator the fair is equal to any institution in the state. We believe it has added dollars to the value of every acre in Minnesota, and deserves the support of every citizen.

Thanking you for your kind attention, we will now listen to the secretary's report.

C. N. COSGROVE, Le Sueur, Minn.,
President.

President Cosgrove: (Continuing) Thanking you for your kind attention, we will now listen to the secretary's report.

Secretary Randall: You have heard from your secretary so often that it seems almost superfluous that I should be called upon again, but it seems to be a part of the usual formalities. These reports will be printed at the close of these meetings, and a copy will be sent to each delegate, and will be sent to others upon application, so that if you care for a report, a postal card request will bring it to you at any time. The report will contain the proceedings of these meetings, the report of the fair, including the report of each department of the prizes awarded, financial statement, etc.

I doubt it being necessary to read the formal report in full, and I will omit parts of it which have already appeared in printed form.

(For secretary's report see opening pages of this book.)

President Cosgrove: We will now listen to the treasurer's report.

Mr. Wilcox: Mr. President, I have the report in detail, and also a summary. Which will you have read?

Several members: Summary.

(For treasurer's report see opening pages of this book.)

President Cosgrove: The next thing will be the report of the Committee on Credentials.

Mr. A. T. Stebbins of the Committee on Credentials then read the list of delegates.

Anoka Street Fair and Agricultural Society—G. W. Swalk, H. C. Johnson, Chas. Coleman.
Chisago County Agricultural Society—John C. Carlson, J. J. Flynn, Thos. W. Malcolm.
Crow Wing County—Swartz, Elder.
Carlton County—J. S. Goodell, J. B. Connor, C. B. Ballon.
Carver County—Frank Werner, John J. Ferrit, Fred Springler.
Chippewa County Driving Park and Fair Association—W. R. Pearson, J. O. Hogeland, Lindan A. Smith.
Dakota County—P. H. Feeley, P. P. Samels, J. B. Kelley.
Dodge County—Geo. B. Healey, A. A. Culver, G. N. Sorum.
Freeborn County—D. K. Stacy (3).
Faribault County—D. D. Murphy, J. M. Malmin, W. O. Whitefield.
Fillmore County—J. C. Mills, A. L. Long, James O'Hare.
Goodhue County—S. B. Bartow, S. B. Scott, M. H. Baskfield.
Grant County—Ray Wells (3).
Kittson County—E. A. Nelson (3).
Lac qui Parle County—Frank Palmer, A. D. Brown, P. G. Jacobson; alternate, J. O. Rosenwald.
Le Sueur County—E. F. Barrett, R. C. von Lehe, J. L. O'Connell.
Mower County—J. J. Furlong, W. L. Hollister, L. D. Baird.
Nicollet County—E. E. Miller (3).
Renville County—Chas. Kenning, H. V. Poore, H. H. Gokey.
Shakopee Fair Association—S. P. Child, Alex. Schafer, John H. Moore; alternate, C. J. Strunk.
Stillwater Fair Association—John Kern, Chas. H. Hillary, Roy G. Staples.
Steele County—J. M. Diment, J. R. Morley, J. W. Rowland.
Stevens County—E. P. Watson, C. C. Thorpe, E. W. Randall.
St. Cloud Street Fair Association—John Coates, Chas. A. Cooper.
Waseca County—H. M. Buck, A. O. Hawkes, John A. Krassin.
Wright County—W. M. Curtis, R. C. Workman, Ed Franklin.
Wabasha County Industrial Fair Association—H. K. Oliverson (3).
Winona Street Fair Association—John Rose, O. H. Griswold.

The presidents of the following associations are entitled to one vote each:

Bee-Keepers' Association, Amber Cane Association, The Southern Minnesota Fair Association, Forestry Association, Swine Breeders' Association, Stock Breeders' Association, State Dairymen's Association, State Horticultural Society, State Poultry Association, Farmers' Alliance.

All life members, as follows:

W. L. Ames, M. T. Grattan, J. G. Bass, J. W. Boxwell, Geo. Bowers, Russell Blakeley, Samuel Adams, J. H. Baker, John A. Hood, A. P. Hendrickson, G. W. Baird, Lorenzo Hoyt, Wm. L. Brimhall, M. K. Hunt, Adam Bohland, H. E. Hoard, W. F. Cross, Hugh Frazier, S. Madigan, Wm. Osgood, W.

Rosencrans, H. W. Stone, Henry Schneider, Daniel Getty, M. Tousley, Ed. Weaver, Frank Holmes, N. P. Clarke, John Cooper, D. M. Clough, Chas. Leonard, Wyman Elliot, W. R. Merriam, Geo. R. Finch, John Marie, L. H. Prosser, P. C. Schuvan, Thos. Slater, M. C. Tuttle, C. N. Bell, R. C. Judson, John Kerwin, A. F. Leomars, Samuel Deering, W. L. McGrath, G. H. Hazzard, C. N. Cosgrove, E. D. Childs, W. M. Liggett, J. C. Fleischer, Geo. Mitsch, J. F. Grimes, C. D. O'Brien, D. Ramaley, G. W. Sherwood, Thos. Shaw, O. C. Gregg, A. H. Bullis, W. A. Miller.

President Cosgrove: Are there any corrections to the report by anybody? If not, it will be adopted as read.

A Member: Mr. President, I would like to ask if there is such an association existing in the State of Minnesota as a Farmers' Alliance?

President Cosgrove: I give it up. I believe everybody here will have to give it up; I certainly do.

Mr. Stebbins: I will say that that is copied from the law, and at the time the law was made the Farmers' Alliance was in existence and hence was deemed entitled to a vote in the society.

A Member: I would ask who in the State of Minnesota represents the Farmers' Alliance? I believe I have just as much right to assume the vote of the Farmers' Alliance as any man living, but I wouldn't assume it.

Mr. Kenning: The matter has been brought up several times in relation to the Farmers' Alliance. Heretofore they have been represented, but I am pretty well informed that they are not now entitled to representation; that there is no such thing as the Alliance in existence. I have been trying very hard to find out who really was entitled to representation or what the Farmers' Alliance was composed of, for very good reasons. At one time I was connected with the Alliance myself; I was elected treasurer, and the funds of that association have burdened my safe; they haven't a cent left in the safe. I would like to find out who the officers are, so I can turn it over to them. (Laughter.)

Mr. Poore: Mr. President, I move that the Farmers' Alliance be not entitled to a vote at this meeting.

President Cosgrove: Well, I hardly think that is necessary, Mr. Poore, inasmuch as there is no one here making an attempt to represent them, and it is unnecessary for us to go into the law. There are other associations in the same condition; I think possibly the Southern Minnesota Fair Association.

Mr. Clark: I move that the report of the Committee on Credentials be accepted and adopted as read.

Motion seconded.

Dean Liggett: I was going to speak of this Farmers' Alliance matter. That was an organization at one time for the benefit of the farmers of the state, and it was proper for its president to represent, and he did represent, the Farmers' Alliance; I remember Mr. Sprague; he was quite prominent at that time. Well, these by-laws were revised, and stated that it was no longer an organization in that form and should be stricken out, and it was supposed to have been done at that time. Mr. Poore is right in that matter, for there is no one to represent them and the name of the association should be stricken off the records of the credentials at this time.

A Member: A person coming from one of these societies as a delegate or president could bring credentials from the society that they were the president for that year; I think that is the point. There are also several life members given there that are now dead.

President Cosgrove: Mr. Clarke's motion is before the house. All in favor of adopting the report as brought in, say "Aye."

Motion carried.

President Cosgrove: I appoint E. P. Watson, E. A. Nelson and Charles Kenning as tellers of the meeting. Now we will have the report of the Committee on Resolutions.

WHEREAS, The Twentieth Century, upon whose threshold we now stand, is to be an era of keen competition, in which the educated mind and the skilled head are to hold the balance of power in the industrial world, and,

WHEREAS, The last census shows that fifty-one per cent of the population of our state are engaged in agricultural pursuits, while only one in five hundred of its number now enjoy the advantage of a training at the State School of Agriculture, and only one in twelve hundred of the school children of the state graduate from the College of Agriculture, and,

WHEREAS, Because of insufficient buildings and equipments it is impractical to further increase the number of students until the plant has been largely increased, and,

WHEREAS, The development of the state along agricultural lines has been and we hope will continue to be in full proportion to that of any other industry in the state; now, therefore, be it

Resolved, That it is the duty of the legislature at this session to make wise provision for the education of our rural population along the lines of their life work, and to this end be it further

Resolved, That we urge the state legislature to pass a law levying a tax of one-fifth of a mill on the property of the state for a period of four years to supply funds to the Department of Agriculture of the University of Minnesota, with which to erect the proposed main building, dormitories, live stock buildings, machine buildings, seed grain house, and to make such other improvements at University Farm as are necessary to so enlarge the institution that many more students may be accommodated, and that its experiment work may be made more effective.

Resolved, That it is the unanimous opinion of this Society that a live stock amphitheater should be provided upon the fair grounds for the purpose of proper exhibition, judging and study of cattle, horses, sheep and swine, and thus extend the valuable educational work of the farm; that a building of suitable character and dimensions for the display of the manufactured products of the state should also be provided, and the legislature is respectfully requested to appropriate the money required for these much needed improvements.

WHEREAS, The State Fair is, and should be, a great educational factor in the life of our farming population, and,

WHEREAS, It is desirable that all its influences should be clean and wholesome, and,

WHEREAS, Our president and official board have shown rare courage and judgment in excluding all objectionable features from the fair grounds, as well as in all their management of its affairs; now, therefore, be it

Resolved, That this society in convention assembled indorse and fully approve all their actions in the part, and pledge them our hearty support along the same lines for the future.

Resolved, That the Minnesota Agricultural Society indorses the movement for improving our public highways and urges the state legislature to pass a law to carry out the plan of the amendment to the State Constitution providing a State Highway Commission, and to arrange a better system of planning, building and maintaining our public highways than our present plan of working out highway taxes.

Resolved, That this society extend its thanks to the Commercial Club of St. Paul for the use of its commodious and pleasant rooms for these meetings and for many courtesies extended. To the press of the state for their generous support and aid; and to the great railway systems for their liberal rates to the fair.

President Cosgrove: Gentlemen, you have this report. Will you take it up section by section, or will you adopt is as a whole?

Member: Adopt it as a whole. I move its adoption as a whole.

Motion seconded.

President Cosgrove: It is moved and seconded that the report be adopted as read. Are there any remarks?

Mr. Clarke: Before this motion is put—these resolutions are very important. Now, there is a feeling in this state that the farmers of the state are very anxious and very desirous of not having any state fair. I don't believe there is any such feeling in this state as a matter of fact. I don't believe there is a farmer in this state that wants any state institution curtailed and lose the advantages they ought to have, on account of the increase of the state tax. There are some politicians that think it would be a big feather in their cap if they could reduce the state tax so that it would be practically nothing. It is down now to one mill. The legislature ought to understand that it is not the state tax that troubles the farmers; it is the local taxes that trouble us, and I hope when you put his motion that it will be done by a rising vote, and I hope every man in this hall will rise. The fact is there is nothing in this state half as important as agriculture; nothing that has been so neglected as agriculture, and every man now on a farm in this state that don't work with his brains as well as his hands cannot succeed for any length of time, and it is going to be more and more so in the future. We must have an appropriation to help our boys and girls. We ought to have 1,500 or 2,000 of those boys and girls at our state farm today. I hope every member of this meeting will see the men in the legislature from their district and get them to vote to set aside this one-fifth of a mill. There was a time when our state farm here took the lead, and I think we have a better reputation than the adjoining states today, and even in the old country, the eyes of the old world is turned toward this agricultural station of ours, and it is time we encouraged the professors who are receiving salaries that are not more than one-half as large as they could get at other institutions. We ought to strengthen their hands by paying them more for their work, and encourage them and put the institution where it belongs, and give those professors money to work with and things to do with, or else we ought to abandon the institution. The success of that institution and the increase of intelligence among the farmers, and the increase in the production of the farms of this state, lies largely with the members of this Agricultural Society. The members of this Agricultural Society are just as much interested in the State Farm as in the State Fair. They are both great educational institutions. There is no State Fair in America that begins to compare with the fair of Minnesota. We have the best place to hold a fair of any place in the United States, and it can increase and go ahead just as far and just as much as our Board of Directors have the ability to carry it. It is just in its infancy yet, and I hope this vote will be unanimous and will be a rising vote.

Mr. Kenning: Mr. President, I really object to taking this matter up in the way it is taken up, and just gone over in a hurry. I think these resolutions are of too much importance to just pass by. We have taken that procedure every year, and I find there are very few that really know what they mean. There are not as many attending these institutions, especially the Agricultural School, as should. We tell about the needs of these schools, etc., but give them no further idea of what is really required. It has been my pleasure to be on your legislative committee, and I was appointed on a committee to investigate this school the past year, and I find in talking with others and in corresponding with others on the subject, that they really know very little about what we really want. We say we want this and that, and they tell us we have enough, little knowing what is really required, and I think it would be far better to take each resolution by itself, and have them thoroughly explain the needs of the different institutions, so the people may go home and thoroughly understand what is wanted, and if we want anything from our legislature, that we can call upon them to speak to their members, and in that way get some help. I have met with these things too often. In speaking with the members of the legislature it was almost necessary that I have a complete report, to even tell some of them that there was an agricultural school. Now, this may be pretty strong language, but I have met members of the legislature that didn't know whether the buildings were made of brick or logs, and I fear if we let it pass along this way that we will have the same thing to go over every year. They will be adopted as a whole and we will go away and be none the wiser. I move that they be taken up section by section.

A Member: Mr. President, your committee have spent considerable time looking over these matters. There are only two sections that call for an appropriation. I believe it is universally believed that what was ask for there is necessary. We are asking for support for one of the best institutions today in America, the advancement of the education of the girls and boys of this state. This is an agricultural state; there should be no quibbling; we should meet it like men. I believe our members of the legislature are an intelligent class of people, and they read up these things; they don't go at it blind, we are behind them, and I trust this thing will be passed unanimously as it is, because there are only two sections that call for appropriations, and if we take these things up separately, we will be here until after dinner. I hope they will be adopted as our friend Clarke suggests.

President Cosgrove: Mr. Kenning's motion has received no second, therefore the vote will be on the motion of Mr. Clarke. All in favor of the motion will please rise.

Members rise.

President Cosgrove: Unanimous vote, I think, gentlemen. (Applause.) (Continuing.) Now, according to the law under which we are created here, it is necessary for the delegates to pay $1 for each membership vote, unless the members see fit to do away with it, as has been done during the past few seasons.

Dean Liggett: I move that the $1 membership fee for the season be omitted.

Motion seconded.

President Cosgrove: All those in favor of Colonel Liggett's motion to suspend payment of the $1 fee say "Aye."

(Members respond.)

President Cosgrove: That is unanimous, I am sure. (Continuing.) We have a permanent committee on life membership. We would like to hear from them.

The Permanent Committee on Life Membership recommended the following names for adoption as life members. A. T. Stebbins, Frank Warner, J. J. Furlong, Thos. H. Shevlin, Geo. Partridge, T. L. De Lancey, J. J. McCardy, H. S. Fairchild, J. H. Letson, S. P. Childs.

Member: Mr. President, I move the adoption of the report, that these men be made life members.

Motion seconded.

President Cosgrove: It is moved and seconded that the report be adopted as read and these men be made life members; all in favor of the motion say "Aye."

Motion carried.

President Cosgrove: I think the next thing in order will be the election of officers, unless there is some new business to be brought up at the present time. If not, we will now proceed to the election of officers. The first will be the election of a president; two vice presidents, a man to succeed J. M. Underwood on the board for three years, and one to succeed L. D. Baird for three years.

E. F. Barrett: Gentlemen of the State Agricultural Society—We Americans, like the ancient Greeks and Romans, are fond of maxims and trite sayings, and, like those ancient people, we have incorporated many of them into our common forms of speech. One such saying which occurs to me at this moment with peculiar force, is this: "Nothing succeeds like success." Gentlemen, the success of your society in the past few years has no parallel in its own history, or that of any other kindred society in the world. Those of us who have been familiar with the fairs connected with the society for the past thirty or thirty-five years remember the frequent recurring deficit which stared the Board of Managers in the face at the close of each fiscal year, and we know how they gave their personal obligations, time without number, to tide over the difficulties that thus confronted them. Within the sound of my voice at the present moment is one, or two, or more, who remember of helping at one time to make up a deficit of $23,000 in one year. When a year ago we discovered in the report of our secretary and treasurer a surplus of $37,000, most of us believed that the high tide of prosperity had been reached, and that its recedin gwaves would never again perhaps gather force to reach and overtop that mark, but with nearly all of that splendid surplus consumed in permanent improvements last year, we now have a surplus of a little over $55,000. Gentlemen, on behalf of the members of this society, present and absent, and of every agriculturist in the state, I desire at this time to return to all who had a part in planning and a hand in achieving these splendid results, our unqualified thanks and congratulations. Gentlemen, it has been said that this society is a great educational force; it is true it holds its school but one week out of the fifty-two, but to its quarter of a million scholars, it teaches by that shrewdest of all methods, the object lesson, that it pays to produce the best in agriculture, horticulture or dairying, or in the production of the different kinds of domestic animals. Why, I remember thirty-five years ago here in Minnesota when any farmer who had the termerity to produce a blooded sire for use upon his farm was called a maniac, while today in almost every neighborhood you can find good breeds of almost every class of domestic animals. The sales of blooded stock inaugurated by the Board of Managers the past three years have been another prolific source of revenue to the state, and have distributed all over the state the finest blood that can be procured in the country, which cannot but result in an improvement of the animals. But, gentlemen, it is not to pronounce a panegyric upon this society, good as it is, that I am before you, but to present to you the name of a gentlemen to succeed our retiring president. In my boyhood days I learned a little couplet like this: " 'Tis not position, wealth or state, but get up and get, that makes men great." In this strenuous twentieth century it is not position, wealth or state that we are looking after, but it is for the man who does things; for the genuine, all-around hustler. We want men in public positions, important public positions, that have the ability to plan and the power to execute great things. We want leaders in thought and action. Having such an one in view, I do not hesitate to present him to you at this time. I have, gentlemen, in view, a man whom I believe to be fully qualified to take up the work of this society as its president and to carry it forward to still greater success; take up the standard and place it upon a still higher level. Only one year ago it was my pleasure and distinguished honor to present to you the name of the gentleman who has since been your president; it was with the confidence that he was abundantly qualified, from long experience, native talent and splendid executive ability, to fill that position. He has now rounded out a full fifteen years as manager and president of this society. He has seen it in its days of adversity and he has now led it into a splendid prosperity. He has shown his capacity to plan and his ability to execute. We want results. We want a man who can control circumstances, and can inspire in his coadjutors that enthusiasm which, united with his own efforts, produces such results as have been produced in this Agricultural Society in past years. It is, therefore, gentlemen, with a feeling of the utmost confidence of your approval that I have the pleasure and honor at this time to present to you as a candidate for president of the society to succeed himself the name of the Honorable C. N. Cosgrove of Le Sueur. (Applause.) Gentlemen, I do this purely from what I consider to be the best interests of this society. I do it with the hope that he will accept this position, and that he may be able in the future, in the coming years, to help lead this society on to a still higher plane, that it may advance and continue to fill its great and manifest destiny. (Applause.)

J. C. Mills: I move you, in behalf of this society, and in view of the fact that the present officers have done their work so thoroughly and so well, that the president, Mr. Cosgrove, Mr. Smith, your two vice presidents, and your two members of the board, each one be nominated by acclamation, and if necessary that the secretary cast the ballot for their election. We don't need to go through the form of electing each one separately. They are entitled to be returned to service, and if they are willing to accept it, I move that they all be elected by acclamation, and, if necessary, that the secretary cast the ballot of the association for them.

Motion seconded.

Mr. Childs: While I don't like to appear in the role of objector, and because I do not, I have sat silent and listened to the society accept the report of the Committee on Life Membership, which I believe is very dangerous and which I believe will react on the society in the future, yet in this instance I have felt it a duty to say that it seems to me that this society owes it to itself and to the great interests of the state, that they do not do this business in a wholesale way, but take up and consider the names of each party separately. Gentlemen, it is a very important duty that you are performing at this time; the fate of the society for the future is in the balance. There may be good and cogent reasons, which, if known and understood by the members of this society, would lead to a change in the personnel of the membership in this society in certain instances which would not apply to other instances, and it seems to me that each name should come up separately, and if there are reasons for changes, they should be known to the society, and we should proceed with our deliberations with an understanding of the conditions, and we should choose only those men who are eligible and who can do the work which will devolve upon them. It seems to me we should vote down this resolution, and we should do as we have done in former days, consider these names separately and on their merits.

Mr. Mills: In behalf of Mr. Childs and the list of names that have been presented to you, I would say that I heartily approve of what Mr. Childs has said. I have gone through some of those battles, and been criticized very severely because the committee didn't report every name that was handed to them. Now, I might perhaps say that the thing I most desire would be a life membership in this society; perhaps we all do, but this society cannot make life memberships for everybody. It is a question whether we should add any names to the list at this time, and while I heartily approve of what Mr. Childs said about accepting the report of the Committee on Life Membership, I still think it would be well enough to elect the officers by one ballot.

President Cosgrove: The report of the Committee on Life Membership has already been adopted, and the motion before the house now is on the election of president. Your motion to adopt wholesale is contrary to the laws; you have to elect one man at a time.

E. F. Barrett: I move you that the secretary of the society be instructed to cast the ballot of all the members of this organization for C. N. Cosgrove to succeed himself as president.

Motion seconded and carried.

Secretary Randall: The ballot is cast, Mr. President.

E. F. Barrett: I have the very great honor and pleasure to present to you Mr. Cosgrove as your president.

President Cosgrove: Gentlemen, I wish to thank you for the honor, and I assure you I appreciate it. Of course you all know that I am Irish hence there was no possibility of my refusing to accept any favor handed out. (Applause and laughter.) You might judge from what that enthusiastic man said that the president of this society was the "whole thing." Now, for fourteen years I was a member of the board, and during those fourteen years that I was on the board I had to work, at least thought I did, tried to do my share; for the last year, as president, I have had nothing to do; the members of the board did all the work, and, as you see, all I have to do is to take the glory. (Laughter and applause.)

We will now proceed to elect the first vice president to succeed Mr. C. R. Smith, his time having expired.

A Member: Mr. President, in view of the fact that we alternate in these positions, I would nominate Mr. Nelson for that position.

Nomination seconded.

Member: I move that the secretary be instructed to cast the ballot of the society for Mr. Nelson as first vice president.

Motion seconded.

President Cosgrove: It is moved and seconded that the secretary cast the ballot of the society for Mr. B. F. Nelson of Minneapolis as first vice president of this society. Are there any other nominations? If not, the vote will be on the motion that the secretary cast the ballot. All in favor of his so doing say "Aye."

Motion carried.

President Cosgrove: The ballot is so cast, and Mr. Nelson is the first vice president for the ensuing year. The next is the election of second vice president.

Member: I take pleasure in nominating Mr. C. R. Smith as second vice president.

Another Member: I move that the secretary be instructed to cast the ballot of the association for C. R. Smith as second vice president of the society.

President Cosgrove: If there are no other nominations, the vote will be on the motion that the secretary cast the ballot for Mr. Smith as second vice president.

Motion carried.

President Cosgrove: The ballot is so cast, and Mr. Smith is second vice president for the ensuing year. The next is the election of a man to take the place of Mr. Underwood for the ensuing three years.

Mr. Clarke: Mr. President, I take great pleasure in nominating Mr. Underwood to succeed himself. It is not necessary for me to say anything in favor of Mr. Underwood. He has shown the value that he has been to this agricultural society for the last two terms—that he is the right man in the right place. There could not anyone have gone into the buildings he had charge of last year and saw how remarkably well he arranged the displays there without always wanting him to stay in the position he has held the last two terms if he is willing to stay there. I hope he will succeed himself.

Nomination seconded.

Mr. Hazzard: Mr. President, I wish to say that I was in accord with Mr. Mills and also in accord with Mr. Childs' motion in a parliamentary way, but there is one motion that we ought to consider at this time. Annually as we meet we have two directors to elect. There is no difference in the office, and there would be nothing that would make one the superior of the other, excepting that if they were voted for by ballot, and one received the larger number of ballots, he might be called the senior member. Now, why would it not be right to nominate another man and have these two men elected on the same ballot? It has been our custom to elect one at o time in the past, and it seems to me that at this time we should commence, and for the future continue, to elect these two men at the same time; that is, voting for them at the same time, because their offices are the same, and therefore I would submit to go with Mr. Underwood at this time. Mr. Lyman D. Baird.

President Cosgrove: I believe in electing each man by himself. It has always been done so for the last thirty years and I hope it will for the next thirty years. I don't think we can, if we wanted to, elect wholesale on this board. The law says we shall elect them by ballot.

Mr. Hazzard: I believe we will come to this sooner or later. It is law; it is parliamentary. You go into any body where one or more officers of the same standing are elected and you will find they will pursue this method. It has been my honor to vote at the Methodist general conference, and they elected two directors in that way. I am satisfied in the near future you will do it if you do not do it at this time.

President Cosgrove: Yes, but suppose we vote for several directors at one time; it might be possible that some one did not receive a majority of the votes cast. I don't believe there is a man that would serve on this board if he didn't feel that at least a majority of the members wanted him there, and for that reason I shouldn't like to see the motion you make carried. We come a long ways here at a big expense; probably an average expense of $25 for each member, and it seems to me the least we can do is to give due respect and time to do the business in a proper and orderly manner, and elect one at a time. However, I will put the motion of Mr. O'Hara.

Mr. Childs: Mr. President, I rise to a point of order. This assembly has already voted to elect one member at a time.

President Cosgrove: Your point is well taken.

Mr. Hazzard: If my motion is not proper, and not before the house, Mr. Childs' position is correct.

A member: I move that the secretary be instructed to cast the ballot of this association electing Mr. Underwood to suceed himself as a member of the board.

President Cosgrove: If there are no other nominations, we will proceed to do so. All in favor of the motion say "Aye."

Motion carried.

President Cosgrove: The ballot is so cast and Mr. Underwood is his own successor for the next three years. Now nominations will be in order for a successor to Mr. Baird.

Mr. Furlong: Mr. President, I move you at this time that without any delay or any comments the secretary be instructed to cast the ballot of this convention for Mr. L. D. Baird to succeed himself for the ensuing term.

Motion seconded.

Mr. Rosenwald: Mr. President, I am from one of the rural districts of this state, and we have appeared here with you for a great many years. We have come here to these meetings as delegates. I represent the Lac qui Parle County Agricultural Society, or in other words, represent Western and Southwestern Minnesota, and, gentlemen, I will assure the members of the State Agricultural Society there are no more patriotic supporters in the state of the State Agricultural Society than in Lac qui Parle and other counties in Western and Southwestern Minnesota. Gentlemen, we know that the officers that have charge of the state fair and of the State Agricultural Society are able, are honest, are eminent men; but, gentlemen, there is a danger, as there is to all great societies that pass along—societies that are a benefit to mankind and to the state at large; but, gentlemen, I warn you. I came pretty near calling it a kid glove society, but I won't; but there is a danger, gentlemen. We have all supported your society loyally. I intended to bring a map with me to illustrate this matter, but I was detained; I couldn't be with you this morning. But the eastern part of Minnesota, a little bunch of the eastern part of Minnesota, hasn't any patent right on the state of Minnesota. Gentlemen, the state of Minnesota is more than an ordinary little spot, and, gentlemen, I ask you that Southwestern Minnesota be recognized for once up the Board of Managers of the state fair. I know Mr. Baird; I know that he is a gentleman of the highest standing that we have in the state. Not one word against him, but, gentlemen, you ask the support of Southwestern Minnesota both in appropriations, in attendance, in spirit and every other way, and, gentlemen, gentlemen, we always show up. If you are going to confine the management to a small spot in Minnesota, then, gentlemen, give them a patent right; let them attend to the balance of it. Gentlemen, I will not detain you with any speech making. We appeared before you last year; it was enough to serve notice. Gentlemen, I present the name of Mr. P. G. Jacobson; he is a relative of the only Jacobson in the state (applause and laughter); and, gentlemen, I have known and been personally acquainted with this gentleman for more than twenty years, and no better man has ever lived in the state than Mr. Jacobson. I want to say to the officers of this institution, that, gentlemen, you don't need to fear that Mr. Jacobson will take any other course than Mr. Baird, and in all honor to Mr. Baird, I want to be excused. It is not because I have anything against Mr. Baird, gentlemen, understand that; but, gentlemen, do the right thing. I understand that the State Agricultural Society is one of these societies where everybody is on an equality. Gentlemen, keep it there, and you will find that you will succeed; you will never get into the condition of one of these little narrow rut societies. In the end it will pay. The reason that Napoleon First was mighty was because he stood close to his people; and, gentlemen, stand close to the people, and you will win out in the end. I nominate Mr. P. G. Jacobson of Lac qui Parle county for the position of one of the Board of Directors.

Mr. Furlong: Mr. President, while I have the highest respect for my friend from Lac qui Parle, both in brain and avoirdupois weight (laughter), I know they have a lot of good, loud talkers out in that county. I have had the pleasure of serving many sessions in the state legislature with our friend from Lac qui Parle. You are young yet in comparison with the men you say are acting in a little, narrow combination. I tell you, sir, the state of Minnesota today can boast of the greatest agricultural institution in this land. Their receipts, their attendance, their management, and their stock interests are not to be outclassed by any state in the Union. This friend, Mr. Baird, a year ago I came before this organization with his name; he is no "kid glove" fellow; he educated himself, paid for his own schooling, graduated on his own money; he earned it by hard work, just as hard work as you or I ever did, John, and he is one of the most successful farmers in the state of Minnesota.

Mr. Rosenwald: I admit it; I admit it. (Laughter and applause.)

Mr. Furlong: We elected him last year to fill the unexpired term of our worthy and esteemed president, and is it justice to that man to say

"Now, boys, we will kick him out?" He made a record in his department last year that has no equal in the United States. Am I right, Mr. President?

President Cosgrove: You are right.

Mr. Furlong: Gentlemen, I tell you, we will elect Mr. Baird by acclamation.

President Cosgrove: It is out of order.

Mr. Furlong: It will only take up time, and the result will be just the same. (Applause.)

Mr. Childs: Mr. President, more than one nomination having been made, it becomes the duty of this convention to proceed to ballot. I move that the roll now be called for the director in question.

Mr. Rosenwald: Now, I would like to have it understood that I refrain from one little jot upon my friend Mr. Baird, not in the least; that is not the question at all, but since my friend Mr. Furlong has gone into detail upon his friend and my friend as well, I will say, gentlemen, that my friend Mr. Jacobson is a thorough agriculturist and a thorough business man; and, gentlemen, I will vouch for the safety of a good, solid government, or a good administration, the same as my friend Baird. My friend Mr. Furlong is unfortunate,—the locality is against him, geography figures against him, and I am going to appeal if you are going to confine it to a few counties; go on, gentlemen, but if you want to see fair play, support Mr. Jacobson.

President Cosgrove: The tellers will distribute the ballots as rapidly as possible.

The roll of delegates entitled to vote was then read by the secretary.

A ballot was then taken upon the two candidates, resulting as follows: Total votes cast, 86; Lyman D. Baird, 71; Jacobson, 15.

Professor Shaw: I hope the gentlemen will not consider that their work is done when this session dissolves. The Minnesota Live Stock Breeders' Association meets here this afternoon at 2 o'clock. Now, gentlemen, we would like you all to be here if you can, because there are important matters to be discussed at that meeting; matters that are of a good deal of consequence to the state of Minnesota. Then the Sheep Breeders' Association will meet immediately afterward, as soon as the others get through with their work. With reference to the swine breeders, they meet this afternoon. If any have not handed in their dues to the Minnesota Live Stock Breeders' Association, $1 per year, or if any are not members, we would like them to become members. We have three or four books here that will be helpful to them.

Mr. Tuttle: I am a pioneer. I voted for the adoption of the constitution. I have attended as many of your state fairs as any man present. There is one thing I want to call this Executive Committee's and the officers' attention to, and that is the premiums that should be offered for a little animal called the Angora goat. I have been charged with having goat on the brain, and I believe if there were more of you charged with that, it would be better for your purses and better for the state. I probably exhibited the first goats ever exhibited at your state fair. I recently visited a fair where there was an exhibit of over $5,000 worth of Angora goats, and they were of a better quality than those that are imported into the United States from Turkey or the Transvaal region. I have assurance from those gentlemen that they will make a fine exhibit at your fair, the finest that has ever been made in this state, of Angora goats, providing you will extend the same privileges to them that you do the breeders of Cotswolds, Oxfords, Downs and all those. One year you did offer a premium; there was an exhibit of goats at that state fair, but no judges were appointed and the men went away mad. Now, you should encourage this industry.

President Cosgrove: That matter will have attention.

A motion was here made to adjourn, which was duly seconded and carried.

BOARD MEETINGS DURING 1902.

The Board of Managers met in St. Paul, on Tuesday, Jan 21, 1902, and organized by the election of E. W. Randall as secretary, and F. J. Wilcox as treasurer.

An arrangement for a joint offer of prizes for cattle, sheep and swine for breeding purposes was made with the Minnesota Live Stock Breeders' Association, as shown in the premium list of 1902.

At a meeting of the Board of Managers held in St. Paul, March 26th, the following superintendents and committees were appointed by President Cosgrove and approved by the board.

SUPERINTENDENTS OF DIVISIONS.

A. Horses—J. C. Curryer, St. Paul.
B. Cattle—W. M. Liggett, St. Anthony Park.
C. and D. Sheep and Swine—J. C. Mills, Preston.
E. Poultry—Leslie Parlin, St. Paul.
F. Dairy Produce—B. D. White, St. Paul.
G. Horticulture and Floriculture—J. M. Underwood, Lake City.
H. Honey, Apiary and Sugar—N. S. Gordon, Crookston.
J. Vegetables, Grain and Farm Produce—N. S. Gordon, Crookston.
K. Woman's Department—B. F. Nelson, Minneapolis.
Assistant Superintendent Woman's Department—Mrs. M. L. Luther, 523 Forest Avenue, Minneapolis.
L. Exposition Building—B. F. Nelson, Minneapolis.
M. Machinery, Farming Implements and Carriages—W. G. Sawyer, Partridge.
Amusements—Chester R. Smith, St. Paul.
Gates—R. H. Cosgrove, Le Sueur.
Police—J. M. Underwood, Lake City.
Forage—W. M. Liggett, St. Anthony Park. Assistant Superintendent, E. H. Riley, St. Cloud.
Privileges—L. D. Baird, Austin.
Farmers' Institute—O. C. Gregg, Lynd.
Grounds—E. W. Randall, Hamline.

STANDING COMMITTEES.

Executive—Liggett, Underwood, Nelson, Smith.
Reception—Sawyer, Curryer, Gordon, Baird.
Auditing—Underwood, Liggett, Smith.
Amusements—Smith, Underwood, Nelson, Liggett.
Advertising—Baird, Liggett, Gordon, Sawyer.
Transportation—Nelson, Sawyer, Curryer, Gordon, Smith.
Privileges—Gordon, Curryer, Underwood, Baird.
Tickets—Curryer, Baird, Nelson, Sawyer.

The report of the premium list committee was received, amended and adopted (see premium list of 1902) at this meeting also.

At a meeting held April 3d, the following race program was adopted and its publication authorized:

RACE PROGRAM.

MONDAY.

No. 1.	2:09 Class—Pacing	$1,000
No. 2.	2:45 Class—Trotting	1,000
No. 3.	Running race, ½-mile heats, 2 in 3	200
No. 4.	Running race, 1½-mile hurdles for 3-year-olds and upwards.	250

TUESDAY.

No. 5.	2:13 Class—Pacing—St. Paul purse, guaranteed by St. Paul business men	5,000
No. 6.	2:25 Class—Trotting	1,000
No. 7.	Running race, 2-mile hurdles for 3-year-olds and upwards..	300

WEDNESDAY.

No. 8.	2:15 Class—Trotting	1,000
No. 9.	2:30 Class—Pacing	1,000
No. 10.	Running race, ½-mile heats	200

THURSDAY.

No. 11.	2:18 Class—Pacing	1,000
No. 12.	2:35 Class—Trotting	1,000
No. 13.	Running race, 1½-mile novelty	250
No. 14.	Running race, 2-mile hurdle for 3-year-olds and upwards..	300

FRIDAY.

No. 15.	2:21 Class—Trotting—Minneapolis purse, guaranteed by Minneapolis business men	5,000
	Live Stock Parade.	
No. 16.	Running race, South St. Paul Derby, ½-mile heats	200

SATURDAY.

No. 17.	2:10 Class—Trotting	1,000
No. 18.	2:40 Class—Pacing	1,000
No. 19.	Running race, 1-mile dash	200
No. 20.	Running race, 1½-mile hurdle for 3-year-olds and upwards..	250

CONDITIONS GOVERNING RACES.

Five to enter and three to start.

Money divided 50, 25, 15 and 10 per cent.

A horse distancing the field, or any part thereof, is only entitled to first money.

Entries close July 1st, at 11 o'clock p. m., when horses must be named. Records made that day no bar.

The rules of the American Trotting Association, of which this society is a member, shall govern harness races, unless otherwise provided.

The society reserves the right to change the order of the program or to declare races off in case of rain.

Mile heats best three in five. No race longer than five heats. Money to be paid in accordance with summary at the end of the fifth heat.

ENTRANCE FEE, five per cent of the purse, due and payable before the race occurs; and five per cent additional from money winners.

The right of substitution is given until August 15th, provided the horse substituted is eligible to the class in which he is named on August 15th. Entries cannot be transferred. A horse may be declared out August 15th by the payment of three per cent of the purse.

One horse may be entered in two classes and be held but for one entry if started in one class, but will be held for both if not started in either.

Two horses may be entered in one class and be held only for the entry of the horse that starts, but will be held for both if neither start.

Trotting and pacing races on mile track. Running races on half-mile track.

CONDITIONS GOVERNING RUNNING RACES.

Entrance fee, five per cent of purse.

Entries close the day before race at five o'clock p. m. Weights up. Governed by American Racing Rules, except as to license for riders.

In the 1½-mile novelty race, $50.00 will be paid to the horse first at the ½-mile, $50.00 to the horse first at the mile and the usual division of the remaining $150.00 among the horses placed at the end of the race.

1½-mile hurdle races will be over six flights of hurdles. 2-mile hurdle races will be over eight flights of hurdles.

In races Nos. 14 and 20, winners at this meeting will carry 5 pounds extra for each race won. Non-winners will be allowed 5 pounds for each start. In race No. 20, horses that have been unplaced during meeting will be allowed 10 pounds additional.

Race No. 16. Only horses that have been used and owned at the Stock Yards in South St. Paul since August 1st will be eligible to South St. Paul Derby.

Running races on half-mile track.

Evening running exhibitions, with usual inducements.

Board meetings were held on June 17th, July 2d, July 22d, August 1st, September 24th, and each day during the fair. The executive and other committees held meetings as occasion required. Repairs and improvements were ordered as necessity demanded.

The amusement program, as finally arranged and carried out at the 1902 fair, was as follows:

MONDAY—LABOR DAY.

2:09 class, pacing, purse $1,000; hippodrome races; band concert; balloon ascension; 2:45 class, trotting, purse $1,000; Kilpatrick's sensational automobile ride; running races on half-mile track; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

TUESDAY—ST. PAUL DAY.

2:13 class, pacing, purse $5,000; band concert; hippodrome races; balloon ascension; 2:25 class, trotting, purse $1,000; Kilpatrick's sensational automobile ride; running races on half-mile track; exhibition of saddle and harness horses; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

WEDNESDAY—FARMERS' DAY.

2:15 class, trotting, purse $1,000; Kilpatrick's sensational automobile ride; balloon ascension; 2:30 class, pacing, purse $1,000; band concert; hippodrome races; running races on half-mile track; exhibition of saddle and harness horses; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

THURSDAY—LIVE STOCK AND DAIRY DAY.

2:18 class, pacing, purse $1,000; hippodrome races; band concert; 2:35 class, trotting, purse $1,000; balloon ascension; Kilpatrick's sensational automobile ride; running races on half-mile track; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

FRIDAY—MINNEAPOLIS DAY.

2:21 class, trotting, purse $5,000; band concert; hippodrome races; Kilpatrick's sensational automobile ride; live stock parade; parade by live stock firms of South St. Paul; running races on half-mile track; balloon ascension; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

SATURDAY—TWIN CITY DAY.

2:40 class, pacing, purse $1,000; Kilpatrick's sensational automobile ride; balloon ascension; band concert; hippodrome races; running races on half-mile track; high wire exhibition; the great Schreyer's aerial cyclist and flying dive act.

REPORT OF SUPERINTENDENT OF DIVISION A.

To the Honorable Members of the Board of Managers of the Minnesota State Agricultural Society:

I herewith report Division A, horse department, for the year 1902.

While we had an excellent show of horses in 1901, it was universally admitted that it was much better this last season, and there is ample evidence that prospectively the fair of 1903 will still be improved in this department.

From past experience and the greatly improved conditions in the horse industry, it is quite evident that the future demand will be for those of more quality and endurance than heretofore generally produced. As the Minnesota State Fair offers such a wonderful opportunity for breeders, dealers and prospective buyers getting together annually for exhibition in contests for prizes, selections for mating as breeders and general inspection by visitors, the ultimate results cannot fail to very greatly improve the conditions of the state at large generally, the live stock specially, and the breeders in particular, even to generations yet to follow.

A visit to the Indiana state fair (just at the close of ours of this year) furnished abundance of evidence for encouragement in the further development of the resources of the Great Northwest in every department of her agriculture and stock interests, as inquiry upon every hand was made as to what we are doing and the prospects of the future in regard to settlement, industries of all kinds, and our State Fair in particular.

The pressing needs of a stock amphitheatre on the State Fair grounds is not more keenly felt by the managers than demanded by the people generally who attend the State Fair and have so little chance to witness the judging of the live stock from crowded conditions. Every effort should be made to secure an appropriation from the state through the legislature this coming winter sufficient to build an exhibition place large enough to accommodate the exhibits and deeply interested people of the Northwest.

I wish to call the special attention of this Board of Managers to Rule 13 under head of "Entries and Awards" for consideration and possible modification.

I wish to further recommend the careful consideration of the extenuation or further division of the premiums of the several classes in Division A, from three to four, or even five money prizes. The difference in amount of first and second prize is generally too great for the difference between the animals awarded first and second prizes as a rule; and this same difference often appears in that of the second and third. And freqeuntly one or more animals that are very nearly as good as third prize winner gets nothing.

I still feel it our duty as a Board of Managers to encourage the breeders of this and adjoining states by opening a futurity for trotters and pacers as well as in the show classes, along the lines of performance in which the animals are bred respectively. The value of our horses is in performance, and they should not only be bred for that duty, but demonstrate at the fair that they are worthy of their lineage. If trotting three-year-olds, give them a chance to show their ability; pacers the same; carriage horses, roadsters, saddlers and draft horses should all be provided with classes for demonstration in their lines of duty, instead of being led out to show by the halter.

Respectfully submitted,

J. C. CURRYER,
Superintendent Horse Department.

DIVISION A—HORSES AND MULES.

Premiums awarded $2,667.00

Superintendent, J. D. Curryer, St. Paul.
Assistant Superintendent, I. D. Curryer, Hinckley.

Class 1—Trotting Stallion, Standard Bred and Registered.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Stallion, four years old or over—				
C. D. Andrews, St. Paul	$25.00			
J. R. Peak & Son, Des Moines, Ia		$15.00		
C. D. Andrews, St. Paul			$5.00	
L. C. Kenney, Minneapolis				Com.
Stallion, three years old or over—				
C. D. Andrews, St. Paul	20.00			
L. C. Kenney, Minneapolis		$15.00		
Thos. Irvine & Son, St. Paul			5.00	
Stallion, two years old and under three—				
Thos. Irvine & Son, St. Paul	15.00			
L. C. Kenney, Minneapolis		10.00		
Thos. Irvine, St. Paul			5.00	
Stallion, one year old and under two—				
J. R. Peak & Son, Des Moines, Ia	15.00			
E. W. Backus, Minneapolis		10.00		
Mare, four years old or over, with suckling foal at her side, both to be considered—				
J. R. Peak & Son, Des Moines, Ia	20.00			
J. R. Peak & Son, Des Moines, Ia		15.00		
Mare, three years old and under four—				
J. R. Peak & Son, Des Moines, Ia	15.00			
J. R. Peak & Son, Des Moines, Ia		10.00		
H. W. Fagley, St. Paul			5.00	
Mare, two years old and under three—				
J. R. Peak & Son, Des Moines, Ia	15.00			
J. R. Peak & Son, Des Moines, Ia		10.00		
E. W. Backus, Minneapolis			5.00	
Mare, one year old and under two—				
J. R. Peak & Son, Des Moines, Ia	15.00			

SWEEPSTAKES.

	1st Prem.	2d Prem.
Stallion of any age—		
C. D. Andrews, St. Paul	25.00	
Thos. Irvine & Son, St. Paul		15.00

GRAND SWEEPSTAKES.

Stallion, any age—	
J. R. Peak & Son, Des Moines, Ia	Diploma.
Mare or filly, any age—	
J. R. Peak & Son, Des Moines, Ia	Diploma.

Class 2—Saddle Horses.

	1st Prem.	2d Prem.	3d Prem.
Stallion, three years old or over—			
Ed. Hodgson, El Paso, Ill	$25.00		
S. E. Powell, Bloomington, Ill		$15.00	
Gelding, three years old or over—			
Mrs. G. T. Hunt, Minneapolis	25.00		
S. E. Powell, Bloomington, Ill		15.00	
S. E. Powell, Bloomington, Ill			$10.00

	1st Prem.	2d Prem.	3d Prem.
Mare, three years old or over—			
S. E. Powell, Bloomington, Ill	25.00		
S. E. Powell, Bloomington, Ill		15.00	
S. E. Powell, Bloomington, Ill			10.00
Combined harness and saddle, any age or sex, to be driven and then ridden, Park Hack. Walk, trot and canter—			
S. E. Powell, Bloomington, Ill	30.00		
Mrs. G. T. Hunt, Minneapolis		20.00	
S. E. Powell, Bloomington, Ill			10.00
Mare or gelding, any age, under saddle—			
S. E. Powell, Bloomington, Ill	25.00		
S. E. Powell, Bloomington, Ill		15.00	
S. E. Powell, Bloomington, Ill			10.00
High school class—			
S. E. Powell Bloomington, Ill	25.00		
Mrs. G. T. Hunt, Minneapolis		15.00	

Class 3—Harness Horses, American or Foreign Bred.

MATCHED HEAVY CARRIAGE OR COACH TEAM.

Must be sixteen hands or more high; soundness, form, style, action, color marks, tractability in reining, stopping, standing still, backing and all that goes to make a safe family team to be considered.

	1st Prem.	2d Prem.	3d Prem.
C. D. Andrews, St. Paul	$30.00		
Charles Brown, St. Paul		$20.00	
J. R. Peak & Son, Des Moines, Ia			$10.00

MATCHED LIGHT CARRIAGE TEAM.

Must be fifteen hands or over in height; soundness, substance, form, style, action, color marks, tractability in reining, stopping, standing still, backing, starting, etc., exhibiting spirit, intelligence and docility for safety to persons to be carefully considered.

B. M. Dickey, St. Paul	30.00		
J. R. Peak & Son, Des Moines, Ia		20.00	
E. W. Backus, Minneapolis			10.00

MATCHED ROADSTER TEAM.

Must be fourteen and one-half hands or over in height; soundness, substance, form, style, color marks, easy action, tractability in reining, stopping, starting, backing, standing still, and speed to be considered.

J. R. Peak & Son, Des Moines, Ia	30.00		
John L. Duncan, Minneapolis		20.00	

APPOINTMENT—TURNOUTS.

Pair mares or geldings or mare and gelding, any age, fifteen and one-half hands or over, stallions barred, driven to brougham, victoria, stanhope, phaeton, cart or trap, driven by owner.

C. D. Andrews, St. Paul	30.00		
J. R. Peak & Son, Des Moines, Ia		20.00	
Chas. Rasor, Norwood, Ill			10.00

Class 4—Harness Horses, American or Foreign Bred.

Must be over sixteen hands high; soundness, substance, form, style, action, color, tractability in reining, stopping, starting, backing, standing still, and all that indicates a safe and trusted animal to be considered.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
C. D. Andrews, St. Paul	$20.00			
Charles Brown, St. Paul		$15.00		
C. H. Watson, St. Charles			$10.00	

SINGLE ROADSTER—MARE OR GELDING.

Must be fifteen hands or over in height; soundness, form, style, easy action, color, tractability in reining, stopping, starting, backing, standing still and all that indicates that the animal is well adapted to road purposes to be considered.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
J. R. Peak & Son, Des Moines, Ia	20.00			
Dr. S. Bowman, St. Paul		15.00		
M. S. Rothchild, Minneapolis			10.00	
Thos. Irvine & Son, St. Paul				Com.

APPOINTMENT—TURNOUTS.

Mare or gelding, any age, fifteen and one-tenth hands or over, driven to spider phaeton, stanhope buggy or trap by owner.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
C. D. Andrews, St. Paul	30.00			
J. R. Peak & Son, Des Moines, Ia		20.00		
E. W. Backus, Minneapolis			10.00	

DRAFT HORSES.

(Stallions Barred.)

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Pair heavy draft, weighing 3,000 pounds or over—				
The Jean Duluth Co., Duluth, Minn	20.00			
The Jean Duluth Co., Duluth, Minn		15.00		
Finch Bros., Verona, Ill			10.00	
Pair of light draft, weighing not less than 2,500 pounds—				
Barrett & Zimmerman, Midway	20.00			

Class 5—American, English, German and French Coach.

(Hackney not Included.)

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Stallion, four years old or over—				
Anoka French Coach Horse Co., Anoka	$25.00			
S. Willmar, St. Paul		$15.00		
Willowbrook Stock Farm, Stockwood			$10.00	
Stallion, three years old and under four—				
Willowbrook Stock Farm, Stockwood	20.00			
Stallion, two years old and under three—				
Willowbrook Stock Farm, Stockwood	15.00			
Willowbrook Stock Farm, Stockwood		10.00		
Stallion, one year old and under two—				
Willowbrook Stock Farm, Stockwood	15.00			
Willowbrook Stock Farm, Stockwood		10.00		

	1st Prem.	2d Prem.	3d Prem.
Mare, four years old or over, with suckling foal at side, both to be considered—			
Willowbrook Stock Farm, Stockwood	20.00		
Mare, three years old and under four—			
Willowbrook Stock Farm, Stockwood	20.00		
Willowbrook Stock Farm, Stockwood		10.00	
Mare, two years old and under three—			
Willowbrook Stock Farm, Stockwood	15.00		
Mare, one year old and under two—			
Willowbrook Stock Farm, Stockwood	15.00		

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Stallion, any age—			
Willowbrook Stock Farm, Stockwood	25.00		
S. Willmar, St. Paul		15.00	

GRAND SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Stallion, any age—			
Willowbrook Stock Farm, Stockwood			Diploma.
Mare or filly, any age—			
Willowbrook Stock Farm, Stockwood			Diploma.

Class 6—Hackneys, Pure Bred.

Stallion, four years old or over—			
C. E. Clark, St. Cloud	$25.00		
Stallion, three years old and under four—			
Ed. Hodgson, El Paso, Ill	20.00		
Finch Bros., Verona, Ill		$15.00	
Mrs. I. C. Seeley, Minneapolis			$5.00
Stallion, two years old and under three—			
Finch Bros., Verona, Ill	15.00		

SWEEPSTAKES.

Stallion, any age—			
C. E. Clark, St. Cloud	25.00		
Finch Bros., Verona, Ill		15.00	

GRAND SWEEPSTAKES.

Stallion, any age—			
C. E. Clark, St. Cloud			Diploma.

Class 7—Imported and American Pure Bred Percheron and French Draft.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Stallion, four years old and over—				
J. T. & J. L. DeLancey, Northfield	$25.00			
Crandall Bros., Red Wing		$15.00		
Ed. Hodgson, El Paso, Ill			$5.00	
Thos. Irvine & Son, St. Paul				Com.
Stallion, three years old and under four—				
T. L. & J. L. DeLancey, Northfield	20.00			
J. T. & J. L. DeLancey, Northfield		15.00		
Jean Duluth Co, Duluth			5.00	
Ed. Hodgson, El Paso, Ill				Com.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Stallion, two years old and under three—				
J. T. & J. L. DeLancey, Northfield	15.00			
Crandall Bros., Red Wing		10.00		
J. T. & J. L. DeLancey, Northfield			5.00	
Stallion, one year old and under two—				
Crandall Bros., Red Wing	15.00			
Ed. Hodgson, El Paso, Ill		10.00		
Ed. Hodgson, El Paso, Ill			5.00	
Mare, four years old or over, with suckling foal at side, both to be considered—				
Crandall Bros., Red Wing	20.00			
Jean Duluth Co., Duluth		15.00		
Ed. Hodgson, El Paso, Ill			5.00	
Mare, three years old and under four—				
Crandall Bros., Red Wing	15.00			
T. L. & J. L. DeLancey, Northfield		10.00		
Mare, two years old and under three—				
Jean Duluth Co., Duluth	15.00			
Jean Duluth Co., Duluth			10.00	
Mare, one year old and under two—				
T. L. & J. L. DeLancey, Northfield	15.00			
Crandall Bros., Red Wing		10.00		

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Stallion, any age—				
T. L. & J. L. DeLancey, Northfield	25.00			
Crandall Bros., Red Wing		15.00		

GRAND SWEEPSTAKES.

Stallion, any age—	
T. L. & J. L. DeLancey, Northfield	Diploma.
Mare or filly, any age—	
Crandall Bros., Red Wing	Diploma.

Class 8—Imported and American Pure Bred Clydesdale.

	1st Prem.	2d Prem.	3d Prem.
Stallion, four years old or over—			
C. E. Clark, St. Cloud	$25.00		
C. E. Clark, St. Cloud		$15.00	
C. E. Clark, St. Cloud			$5.00
Stallion, three years old and under four—			
C. E. Clark, St. Cloud	20.00		
C. E. Clark, St. Cloud		15.00	
Stallion, two years old and under three—			
C. E. Clark, St. Cloud	15.00		
C. E. Clark, St. Cloud		10.00	
Stallion, one year old and under two—			
C. E. Clark, St. Cloud	15.00		
C. E. Clark, St. Cloud		10.00	
Mare, two years old and under three—			
C. E. Clark, St. Cloud	15.00		
C. E. Clark, St. Cloud		10.00	
Mare, one year old and under two—			
C. E. Clark, St. Cloud	15.00		
C. E. Clark, St. Cloud		10.00	

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Stallion, any age—			
C. E. Clarke, St. Paul	25.00		

GRAND SWEEPSTAKES.

Stallion, any age—	
C. E. Clark, St. Paul	Diploma.
Mare or filly, any age—	
C. E. Clark, St. Cloud	Diploma.

Class 9—Imported and American Pure Bred English Shire.

	1st Prem.	2d Prem.	3d Prem.
Stallion, four years old or over—			
Finch Bros., Verona, Ill	$25.00		
Finch Bros., Verona, Ill		$15.00	
Finch Bros., Verona, Ill			$5.00
Stallion, three years old and under four—			
Finch Bros., Verona, Ill	20.00		
Finch Bros., Verona, Ill		15.00	
Stallion, two years old and under three—			
Finch Bros., Verona, Ill	15.00		
Mare, four years old or over, with suckling foal at side, both to be considered—			
Finch Bros., Verona, Ill	20.00		
Mare, three years old and under four—			
Finch Bros., Verona, Ill	15.00		
Mare, two years old and under three—			
Finch Bros., Verona, Ill	15.00		
Mare, one year old and under two—			
Finch Bros., Verona, Ill	15.00		

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Stallion, any age—			
Finch Bros., Verona, Ill	25.00		
Finch Bros., Verona, Ill		15.00	

GRAND SWEEPSTAKES.

Stallion, any age—	
Finch Bros., Verona, Ill	Diploma.
Mare or filly, any age—	
Finch Bros., Verona, Ill	Diploma.

Class 10—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Four or more of the get (four years old or under) of a registered trotting stallion; stallion to be shown and considered—			
J. R. Peak & Son, Des Moines, Ia	$35.00		
L. C. Kenney, Minneapolis		$25.00	
Thos. Irvine & Son, St. Paul			$15.00

Class 11—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Four or more of the get (four years old or under) of a registered American, English, French or German coach stallion; stallion to be shown and considered—			
Willowbrook Stock Farm, Stockwood	$35.00		

Class 12—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Four or more of the get (four years old or under) of a registered draft stallion, any breed; stallion to be shown and considered—			
Finch Bros., Verona, Ill	$35.00		
T. L. & J. L. DeLancey, Northfield		$25.00	

Class 13—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Registered trotting mare, showing one or more of her produce, any age—			
J. R. Peak & Son, Des Moines, Ia	$25.00		
J. R. Peak & Son, Des Moines, Ia		$15.00	

Class 14—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Registered American, English, German or French coach mare, showing one or more of her produce, any age—			
Willowbrook Stock Farm, Stockwood	$25.00		

Class 15—Grand Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Registered draft mare, showing one or more of her produce, any age—			
Crandall Bros., Red Wing	$25.00		
The Jean Duluth Co., Duluth, Minn		$15.00	

Class 16—Ponies.

	1st Prem.	2d Prem.	3d Prem.
Stallion, three years old or over—			
M. R. Bracklin, Minneapolis	$15.00		
M. R. Bracklin, Minneapolis		$10.00	
M. R. Bracklin, Minneapolis			$5.00
Stallion, two years old—			
M. R. Bracklin, Minneapolis	10.00		
Mare, three years old—			
M. R. Bracklin, Minneapolis	10.00		
T. Eddleston, St. Paul		6.00	
M. R. Bracklin, Minneapolis			3.00
Mare, two years old—			
M. R. Bracklin, Minneapolis	8.00		
M. R. Bracklin, Minneapolis		4.00	

	1st Prem.	2d Prem.	3d Prem.
Mare, one year old—			
M. R. Bracklin, Minneapolis	6.00		
M. R. Bracklin, Minneapolis		3.00	
Mare and foal, both to be considered—			
M. R. Bracklin, Minneapolis	10.00		
M. R. Bracklin, Minneapolis		6.00	
M. R. Bracklin, Minneapolis			3.00
Herd of ponies, not less than five head, one stallion, five mares—			
M. R. Bracklin, Minneapolis	20.00		
M. R. Bracklin, Minneapolis		10.00	
M. R. Bracklin, Minneapolis			5.00
Matched driving team—			
M. R. Bracklin, Minneapolis	15.00		
M. R. Bracklin, Minneapolis		10.00	
M. R. Bracklin, Minneapolis			5.00
Single driver—			
M. R. Bracklin, Minneapolis	8.00		
M. R. Bracklin, Minneapolis		4.00	
M. R. Bracklin, Minneapolis			2.00
Saddle pony—			
M. R. Bracklin, Minneapolis	8.00		
M. R. Bracklin, Minneapolis		4.00	
M. R. Bracklin, Minneapolis			2.00

Agricultural Classes Grades.

Class 18—Trotting Strains.

	1st Prem.	2d Prem.	3d Prem.
Brood mares, with suckling foal at side, both to be considered—			
C. A. Leek, Minneapolis	$20.00		
Thos. Irvine & Son, St. Paul	15.00		
Mare, three years old and under four—			
Thos. Irvine & Son, St. Paul	15.00		
B. F. Morinson, Glencoe		10.00	
C. M. Amsden, Minneapolis			$5.00
Mare, two years old and under three—			
C. A. Leek, Minneapolis	15.00		

Class 19—Percheron, French Draft Clydesdale and English Shire.

	1st Prem.	2d Prem.	3d Prem.
Mare, one year old and under two—			
L. W. Orr, Afton	$15.00		
F. Lucksinger, Cottage Grove		$10.00	

REPORT OF SUPERINTENDENT OF DIVISION B.

To the Honorable Members of the Board of Managers of the State Agricultural Society:

I herewith submit a report of Division B, cattle department, for 1902.

Making the cattle exhibit of our state fair somewhat national in character, bringing together herds from the farms of the breeders from the states of Missouri, Kansas, Illinois, Indiana, Iowa, Wisconsin, Minnesota and the Dakotas, has proven a success.

The Shorthorn exhibit conducted by the American Shorthorn Breeders' Association was another very successful breed show. Exhibitors: Colonel

Casey, of Missouri; Geo. Harding & Son, of Wisconsin; E. W. Bowen, of Indiana; H. F. Brown, C. E. Clarke, L. W. Orr and the Thompson Cattle Co., of Minnesota; T. J. Wornall and George Bothwell, of Missouri; C. F. Rice, Illinois; N. A. Linde and A. Alexander, of Iowa.

The Herefords also made excellent showing—some rings I never saw better, considering uniformity of excellency. Exhibitors: O. Harris, Gudgell & Simpson, J. A. Funkhouser, Stewart & Hutchinson, G. P. Henry, W. S. Van Natta & Son, J. C. Adams, C. N. Moore, Thomas Keough, G. E. McEathron and C. A. Stannard.

The auction sales of these two breeds, held in the judging tent in the forenoons of Tuesday, Wednesday and Thursday, were in most instances entirely satisfactory to the contributors. The most encouraging feature was the scattering of the cattle through the Northwest, both associations appreciating that the Minnesota Fair is the entrance way to the farmers of the Northwest.

The educational work that has been carried on for years through the state fairs and at our farmers' institutes, and through the work of the Department of Agriculture of our University, has caused great interest in stock growing, and our farmers are appreciating the benefit of this educational work.

The Shorthorn and the Hereford Associations, being so well pleased with the results, have both cheerfully assented to a return in 1903 under the same conditions, holding three days' sales.

The Aberdeen Angus herds were represented by C. H. Gordon, A. C. Binnie, M. P. & S. E. Lantz and J. O. Strubinger. The Aberdeen Angus Association having contributed $300 additional premiums to our Fair Association, gives much encouragement to the exhibitors of this excellent breed of cattle.

The Galloways exhibited were from the herds of the Brookside Stock Farm, Indiana; C. E. Clarke, of Minnesota; E. H. White and C. N. Moody, of Iowa. This breed of cattle is becoming quite popular in the Northwest, and the exhibit was one of much interest.

The Red Polls were not so well represented as in 1901. A. Dutton & Son, of Wisconsin, and J. J. Chambers, of Illinois, were the exhibitors. As the premiums were considerably increased last year in this class the exhibit was not up to the standard of 1901.

The Brown Swiss were well represented by Inman Bros. and H. W. Ayers, of Wisconsin, and G. S. Barnes and F. A. Squires, of Minnesota. These herds represented several different types—some of them conforming closely to the dairy and others after the beef types, which is somewhat confusing to the public.

The Jersey exhibit was not large, but excellent in quality—represented by three members: J. E. Robbins, of Indiana; Rolla Oliver, of Missouri, and O. C. Wright, of Minnesota. There were some excellent specimens of the breed which created considerable interest.

There was only one herd of Guernseys represented, and by W. Nichols, of Wisconsin.

The Holstein-Friesians were represented by W. B. Barney & Co., of Iowa, and John B. Irwin, of Minnesota.

The display of cattle, more especially the beef breeds, was very gratifying. The Board of Managers are to be congratulated. The breeders from the several states were high in their praises as to the excellent character of the show, giving universal expression to the fact that the cattle exhibit was equal to that of any other state fair.

I must for the fourth or fifth time call the board's attention to the importance of a suitable amphitheatre for the judging and sale of cattle. Minnesota is greatly lacking in these accommodations, and the exhibitors are anticipating coming next year with the privilege of showing in an amphitheatre that will do credit to our great fair, and we cannot afford to disappoint them. We should renew our efforts to secure from the legislature an appropriation for the erection of such a building, costing not less than $75,000.

Respectfully submitted,
WM. M. LIGGETT,
Superintendent of Division B.

DIVISION B—CATTLE.

Premiums awarded..$4,047.00

Superintendent, Wm. M. Liggett, St. Anthony Park.
Assistant Superintendents, Geo. A. Cobb, St. Paul, and
Robt. B. Liggett, St. Anthony Park.
Judges, M. B. Wood, Thomas Shaw.

Class 21—Aberdeen Angus.

	1st Prem.	2d Prem.	3d Prem.
Bull, three years old or over—			
C. H. Gardner, Blandinsville, Ill	$15.00		
M. P. & S. E. Santz, Carlock, Ill		$10.00	
Bull, two years old and under three—			
A. C. Binnie, Alto, Ia	15.00		
Bull, one year and under two—			
J. O. Strubinger, El Dara, Ill	15.00		
C. H. Gardner, Blandinsville, Ill		10.00	
A. C. Binnie, Alto, Ia			$5.00
Bull calf, under one year and over four months—			
C. H. Gardner, Blandinsville, Ill	15.00		
A. C. Binnie, Alto, Ia		10.00	
M. P. & S. E. Santz, Carlock, Ill			5.00
J. O. Strubinger, El Dara, Ill			Com.
Cow, three years old or over—			
C. H. Gardner, Blandinsville, Ill	15.00		
A. C. Binnie, Alto, Ia		10.00	
M. P. & S. E. Santz, Carlock, Ill			5.00
J. O. Strubinger, El Dara, Ill			Com.
Heifer, two years old and under three—			
C. H. Gardner, Blandinsville, Ill	15.00		
A. C. Binnie, Alto, Ia		10.00	
M. P. & S. E. Santz, Carlock, Ill			5.00
M. P. & S. E. Santz, Carlock, Ill			Com.
Heifer, one year old and under two—			
C. H. Gardner, Blandinsville, Ill	15.00		
M. P. & S. E. Santz, Carlock, Ill		10.00	
C. H. Gardner, Blandinsville, Ill			5.00
A. C. Binnie, Alto, Ia			Com.
Heifer calf, under one year and over four months—			
A. C. Binnie, Alto, Ia	15.00		
C. H. Gardner, Blandinsville, Ill		10.00	
C. H. Gardner, Blandinsville, Ill			5.00
J. O. Strubinger, El Dara, Ill			Com.
Herd young cattle, to consist of one bull, under two years old, two females under two years old and over one; two females under one year old and over four months (females to be bred by exhibitor)—			
C. H. Gardner, Blandinsville, Ill	75.00		
A. C. Binnie, Alto, Ia		50.00	
Get of one sire, four animals of either sex—			
A. C. Binnie, Alto, Ia	25.00		
C. H. Gardner, Blandinsville, Ill		15.00	
M. P. & S. E. Santz, Carlock, Ill			10.00
Produce of one cow, two animals of either sex—			
C. H. Gardner, Blandinsville, Ill	25.00		
A. C. Binnie, Alto, Ia		15.00	
J. O. Strubinger, El Dara, Ill			10.00

	1st Prem.	2d Prem.	3d Prem.
Herd of one bull, any age; one cow three years old or over; one cow, two years old and under three; one cow or heifer, one year old and under two, and one heifer under one year old—			
C. H. Gardner, Blandinsville, Ill	100.00		
A. C. Binnie, Alto, Ia		50.00	
M. P. & S. E. Santz, Carlock, Ill			25.00

SWEEPSTAKES.

Champion male, two years or over—	
C. H. Gardner, Blandinsville, Ill	Diploma.
Champion female, two years old or over—	
C. H. Gardner, Blandinsville, Ill	Diploma.
Junior champion male, under two years old—	
J. O. Strubinger, El Dara, Ill	Diploma.
Junior champion female, under two years old—	
A. C. Binnie, Alto, Ia	Diploma.

Special Premiums, Aberdeen Angus Breeders' Association.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.	6th Prem.
Bull, three years old or over—						
C. H. Gardner, Blandinsville, Ill	$14.00					
M. P. & S. E. Santz, Carlock, Ill		$9.00				
Bull, two years and under three—						
A. C. Binnie, Alto, Ia	14.00					
Bull, one year and under two—						
J. O. Strubinger, El Dara, Ill	14.00					
C. H. Gardner, Blandinsville, Ill		8.00				
A. C. Binnie, Alto, Ia			$6.00			
Bull, under one year—						
C. H. Gardner, Blandinsville, Ill	14.00					
A. C. Binnie, Alto, Ia		8.00				
M. P. & S. E. Santz, Carlock, Ill			6.00			
J. O. Strubinger, El Dara, Ill				$4.00		
J. O. Strubinger, El Dara, Ill					$3.00	
Cow, three years old or over—						
C. H. Gardner, Blandinsville, Ill	14.00					
A. C. Binnie, Alto, Ia		9.00				
O. H. Swigart, Champaign, Ill			6.00			
J. O. Strubinger, El Dara, Ill				4.00		
Heifer, two years and under three—						
C. H. Gardner, Blandinsville, Ill	14.00					
A. C. Binnie, Alto, Ia		9.00				
M. P. & S. E. Santz, Carlock, Ill			6.00			
M. P. & S. E. Santz, Carlock, Ill				4.00		
Heifer, one year and under two—						
C. H. Gardner, Blandinsville, Ill	14.00					
M. P. & S. E. Santz, Carlock, Ill		8.00				
C. H. Gardner, Blandinsville, Ill			6.00			
A. C. Binnie, Alto, Ia				4.00		
M. P. & S. E. Santz, Carlock, Ill					3.00	
A. C. Binnie, Alto, Ia						$2.00
Heifer, under one year—						
A. C. Binnie, Alto, Ia	14.00					
C. H. Gardner, Blandinsville, Ill		8.00				
C. H. Gardner, Blandinsville, Ill			6.00			
J. O. Strubinger, El Dara, Ill				4.00		
M. P. & S. E. Santz, Carlock, Ill					3.00	
A. C. Binnie, Alto, Ia						2.00

Class 22—Galloway.

	1st Prem.	2d Prem.	3d Prem.
Bull, three years old or over—			
C. N. Moody, Atlanta, Mo	$15.00		
E. H. White, Estherville		$10.00	
C. E. Clark, St. Cloud			$5.00
Brookside Farm Co., Ft. Wayne, Ind			Com.
Bull, two years old and under three—			
E. H. White, Estherville	15.00		
Bull, one year old and under two—			
Brookside Farm Co., Ft. Wayne, Ind	15.00		
C. N. Moody, Atlanta, Mo		10.00	
Brookside Farm Co., Ft. Wayne, Ind			5.00
Bull calf, under one year and over four months—			
Brookside Farm Co., Ft. Wayne, Ind	15.00		
Brookside Farm Co., Ft. Wayne, Ind		10.00	
C. N. Moody, Atlanta, Mo			5.00
E. H. White, Estherville			Com.
Cow, three years old or over—			
Brookside Farm Co., Ft. Wayne, Ind	15.00		
E. H. White, Estherville		10.00	
C. E. Clark, St. Cloud			5.00
C. N. Moody, Atlanta, Mo			Com.
Heifer, two years old and under three—			
C. N. Moody, Atlanta, Mo	15.00		
C. N. Moody, Atlanta, Mo		10.00	
Brookside Farm Co., Ft. Wayne, Ind			5.00
C. E. Clark, St. Cloud			Com.
Heifer, one year old and under two—			
Brookside Farm Co., Ft. Wayne, Ind	15.00		
C. N. Moody, Atlanta, Mo		10.00	
C. N. Moody, Atlanta, Mo			5.00
C. E. Clark, St. Cloud			Com.
Heifer calf, under one year and over four months—			
E. H. White, Estherville	15.00		
C. E. Clark, St. Cloud		10.00	
Brookside Farm Co., St. Cloud			5.00
C. N. Moody, Atlanta, Mo			Com.

HERDS.

	1st Prem.	2d Prem.	3d Prem.
Herd young cattle to consist of one bull under two years old, two females under two years old and over one; two females under one year old and over four months (females to be bred by exhibitor)—			
Brookside Farm Co., Ft. Wayne, Ind	25.00		
C. N. Moody, Atlanta, Mo		10.00	
Get of one sire, four animals of either sex—			
Brookside Farm Co., Ft. Wayne, Ind	25.00		
C. N. Moody, Atlanta, Mo		10.00	
Produce of cow, two animals of either sex—			
C. N. Moody, Atlanta, Mo	15.00		
Brookside Farm Co., Ft. Wayne, Ind		10.00	
Herd of one bull, any age; one cow, three years old or over; one cow two years old and under three; one cow or heifer one year old and under two; and one heifer under one year—			
Brookside Farm Co., Ft. Wayne, Ind	75.00		
C. N. Moody, Atlanta, Mo		50.00	
C. E. Clarke, St. Cloud			25.00
E. H. White, Estherville			Com.

SWEEPSTAKES.

	Prem. 1st	Prem. 2d	Prem. 3d
Champion male, two years old or over—			
C. N. Moody, Atlanta, Mo		Diploma.	
Champion female, two years old or over—			
Brookside Farm Co., Ft. Wayne, Ind		Diploma.	
Junior champion male, under two years old—			
C. N. Moody, Atlanta, Mo		Diploma.	
Junior champion female, under two years old—			
C. N. Moody, Atlanta, Mo		Diploma.	

Class 23—Holstein-Friesians.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Bull, three years old or over—				
John B. Irwin, Minneapolis	$30.00			
John B. Irwin, Minneapolis		$20.00		
Bull, two years old and under three—				
W. B. Barney & Co., Hampton, Ia	20.00			
John B. Irwin, Minneapolis		15.00		
Bull, one year and under two—				
John B. Irwin, Minneapolis	20.00			
W. B. Barney & Co., Hampton, Ia		15.00		
Bull calf, under one year—				
W. B. Barney & Co., Hampton, Ia	20.00			
John B. Irwin, Minneapolis		15.00		
John B. Irwin, Minneapolis			10.00	
W. B. Barney & Co., Hampton, Ia				5.00
Cow, three years old or over—				
W. B. Barney & Co., Hampton, Ia	30.00			
John B. Irwin, Minneapolis		20.00		
W. B. Barney & Co., Hampton, Ia			15.00	
John B. Irwin, Minneapolis				10.00
Cow, two years old and under three—				
John B. Irwin, Minneapolis	20.00			
John B. Irwin, Minneapolis		15.00		
John B. Irwin, Minneapolis			10.00	
W. B. Barney & Co., Hampton, Ia				5.00
Cow, one year and under two—				
John B. Irwin, Minneapolis	20.00			
John B. Irwin, Minneapolis		15.00		
John B. Irwin, Minneapolis			10.00	
W. B. Barney & Co., Hampton, Ia				5.00
Heifer calf, under one year—				
W. B. Barney & Co., Hampton, Ia	20.00			
John B. Irwin, Minneapolis		15.00		
W. B. Barney & Co., Hampton, Ia			10.00	
J. B. Irwin, Minneapolis				5.00

GET OF SIRE.

Four animals of either sex, get of one sire—		
John B. Irwin, Minneapolis	$40.00	
W. B. Barney & Co., Hampton, Ia		$30.00
Produce of one cow, two animals of either sex—		
John B. Irwin, Minneapolis	40.00	
W. B. Barney & Co., Hampton, Ia		30.00

GRADED HERD.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Bull, two years old or over; cow, three years old or over; cow, two years old and under three; heifer, one year old and under two; heifer calf, under one year—				
W. B. Barney & Co., Hampton, Ia	80.00			
John B. Irwin, Minneapolis		60.00		

BREEDERS' YOUNG HERD.

Bull, under two years old; two heifers, one year old and under two; two heifer calves, under one year old. (Females to be bred by exhibitors.)—				
John B. Irwin, Minneapolis	60.00			
W. B. Barney & Co., Hampton, Ia		45.00		

AGED CHAMPIONS.

Bull, two years old or over—				
John B. Irwin, Minneapolis				Diploma.
Cow, two years old or over—				
W. B. Barney & Co., Hampton, Ia				Diploma.

JUNIOR CHAMPIONS.

Bull, under two years old—				
John B. Irwin, Minneapolis				Diploma.
Heifer, under two years old—				
John B. Irwin, Minneapolis				Diploma.
For the Holstein-Friesian cow, over three years old, making the most butterfat in a two days' test (the amount to be determined by the Babcock tester)—				
John B. Irwin, Minneapolis	25.00			
W. B. Barney & Co., Hampton, Ia		15.00		
W. B. Barney & Co., Hampton, Ia			10.00	
For the Holstein-Friesian heifer, under three years old, making the most butterfat in a two days' test (the amount to be determined by the Babcock tester)—				
John B. Irwin, Minneapolis	25.00			
John B. Irwin, Minneapolis		15.00		
W. B. Barney & Co., Hampton, Ia			10.00	

Class 24—Jersey.

(Fourth Premium Commended.)

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Bull, three years old and over—				
J. E. Robbins, Greensburg, Ind	$15.00			
J. E. Robbins, Greensburg, Ind		$10.00		
Bull, two years old and under three—				
J. E. Robbins, Greensburg, Ind	15.00			
Rolla Oliver, Dearborn, Mo		10.00		
Bull, one year old and under two—				
J. E. Robbins, Greensburg, Ind	15.00			
Rolla Oliver, Dearborn, Mo		10.00		
O. C. Wright, St. Paul			$5.00	

	1st Prem.	3d Prem.	3d Prem.	4th Prem.
Bull calf, under one year and over four months—				
J. E. Robbins, Greensburg, Ind	10.00			
J. E. Robbins, Greensburg, Ind		5.00		
Rolla Oliver, Dearborn, Mo			3.00	
O. C. Wright, St. Paul				Com.
Cow, three years old or over—				
J. E. Robbins, Greensburg, Ind	15.00			
Rolla Oliver, Dearborn, Mo		10.00		
Rolla Oliver, Dearborn, Mo			5.00	
Rolla Oliver, Dearborn, Mo				Com.
Heifer, two years old or over—				
J. E. Robbins, Greensburg, Ind	15.00			
Rolla Oliver, Dearborn, Mo		10.00		
O. C. Wright, St. Paul			5.00	
O. C. Wright, St. Paul				Com.
Heifer, one year old and under two—				
J. E. Robbins, Greensburg, Ind	15.00			
Rolla Oliver, Dearborn, Mo		10.00		
J. E. Robbins, Greensburg, Ind			5.00	
Rolla Oliver, Dearborn, Mo				Com.
Heifer calf, under one year and over four months—				
J. E. Robbins, Greensburg, Ind	10.00			
J. E. Robbins, Greensburg, Ind		5.00		
Rolla Oliver, Dearborn, Mo			3.00	
Rolla Oliver, Dearborn, Mo				Com.

HERDS.

Herd young cattle, to consist of one bull and four females, under two years old (females bred by exhibitor)—				
J. E. Robbins, Greensburg, Ind	25.00			
Get of one sire, four animals of either sex—				
Rolla Oliver, Dearborn, Mo	25.00			
J. E. Robbins, Greensburg, Ind		10.00		
Produce of one cow, two animals of either sex—				
Rolla Oliver, Dearborn, Mo	15.00			
J. E. Robbins, Greensburg, Mo		10.00		
Herd of one bull, any age; one cow, three years old or over; one cow two years old and under three; one cow or heifer, one year old and under two; and one heifer under one year old—				
J. E. Robbins, Greensburg, Ind	75.00			
Rolla Oliver, Dearborn, Mo		50.00		
O. C. Wright, St. Paul			25.00	

SWEEPSTAKES.

Champion male, two years old or over—				
J. E. Robbins, Greensburg, Ind				Diploma.
Champion female, two years old or over—				
J. E. Robbins, Greensburg, Ind				Diploma.
Junior champion male, under two years old—				
J. E. Robbins, Greensburg, Ind				Diploma.
Junior champion female, under two years old—				
J. E. Robbins, Greensburg, Ind				Diploma.

Class 25—Guernsey.

	1st Prem.	2d Prem.	3d Prem.
Bull, three years old or over—			
W. Nichols, Trempealeau, Wis	$15.00		
Bull, two years old and under three—			
W. Nichols, Trempealeau, Wis	15.00		
Bull, one year old and under two—			
W. Nichols, Trempealeau, Wis	15.00		
W. Nichols, Trempealeau, Wis		$10.00	
Cow, three years or over—			
W. Nichols, Trempealeau, Wis	15.00		
W. Nichols, Trempealeau, Wis		10.00	
W. Nichols, Trempealeau, Wis			$5.00
Heifer, two years old or over—			
W. Nichols, Trempealeau, Wis	15.00		
W. Nichols, Trempealeau, Wis		10.00	
Heifer, one year and under two—			
W. Nichols, Trempealeau, Wis	15.00		
W. Nichols, Trempealeau, Wis		10.00	
Heifer calf, under one year and over four months—			
W. Nichols, Trempealeau, Wis	10.00		
W. Nichols, Trempealeau, Wis		5.00	

HERDS.

	1st Prem.	2d Prem.	3d Prem.
Herd young cattle, to consist of one bull and four females, under two years old (females bred by exhibitor)—			
W. Nichols, Trempealeau, Wis	25.00		
Produce of one cow, two animals of either sex—			
W. Nichols, Trempealeau, Wis	15.00		
Herd of one bull, any age; one cow, three years old or over; one cow, two years old and under three; one cow or heifer, one year old and under two, and one heifer under one year old—			
W. Nichols, Trempealeau, Wis	75.00		

Class 26—Red Polled.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Bull, three years old or over—				
J. J. Chambers, Sadorus, Ill	$15.00			
Bull, two years old and under three—				
A. Dutton & Son, Trempealeau, Wis	15.00			
Bull, one year old and under two—				
J. J. Chambers, Sadorus, Ill	15.00			
Bull calf, under one year and over four months—				
J. J. Chambers, Sadorus, Ill	10.00			
A. Dutton & Son, Trempealeau, Wis		$5.00		
A. Dutton & Son, Trempealeau, Wis			$3.00	
Cow, three years old or over—				
A. Dutton & Son, Trempealeau, Wis	15.00			
J. J. Chambers, Sadorus, Ill		10.00		
A. Dutton & Son, Trempealeau, Wis			5.00	
Heifer, two years old and under three—				
A. Dutton & Son, Trempealeau, Wis	15.00			
J. J. Chambers, Sadorus, Ill		10.00		
J. J. Chambers, Sadorus, Ill			5.00	

	1st Prem.	3d Prem.	3d Prem.	4th Prem.
Heifer, one year old and under two—				
J. J. Chambers, Sadorus, Ill	15.00			
J. J. Chambers, Sadorus, Ill		10.00		
A. Dutton & Son, Trempealeau, Wis			5.00	
A. Dutton & Son, Trempealeau, Wis				Com.
Heifer calf, under one year and over four months—				
J. J. Chambers, Sadorus, Ill	10.00			
J. J. Chambers, Sadorus, Ill		5.00		
A. Dutton & Son, Trempealeau, Wis			3.00	
A. Dutton & Son, Trempealeau, Wis				Com.

HERDS.

	1st Prem.	3d Prem.	3d Prem.	4th Prem.
Herd young cattle, to consist of one bull and four females, under two years old (females bred by exhibitor)—				
J. J. Chambers, Sadorus, Ill	25.00			
A. Dutton & Son, Trempealeau, Wis		10.00		
Get of one sire, four animals of either sex—				
J. J. Chambers, Sadorus, Ill	25.00			
A. Dutton & Son, Trempealeau, Wis		10.00		
Produce of one cow, two animals of either sex—				
J. J. Chambers, Sadorus, Ill	15.00			
A. Dutton & Son, Trempealeau, Wis		10.00		
Herd of one bull, any age; one cow, three years old or over; one cow, two years old and under three; one cow or heifer, one year old and under two; and one heifer, under one year old—				
J. J. Chambers, Sadorus, Ill	75.00			
A. Dutton & Son, Trempealeau, Wis		50.00		

SWEEPSTAKES.

	1st Prem.	3d Prem.	3d Prem.	4th Prem.
Champion male, two years old or over—				
J. J. Chambers, Sadorus, Ill				Diploma.
Champion female, two years old or over—				
A. Dutton & Son, Trempealeau, Wis				Diploma.
Junior champion male, under two years old—				
J. J. Chambers, Sadorus, Ill				Diploma.
Junior champion female under two years old—				
J. J. Chambers, Sadorus, Ill				Diploma.

Class 27—Brown Swiss.

	1st Prem.	2d Prem.	3d Prem.
Bull, three years old or over—			
T. H. Inman, Hanover, Wis	$15.00		
G. S. Barnes, Fargo, N. D		$10.00	
F. A. Squires & Son, Blue Earth			Com.
Bull, two years old and under three—			
G. S. Barnes, Fargo, N D	15.00		
H. W. Ayers, Honey Creek, Wis		10.00	
Bull, one year old and under two—			
G. S. Barnes, Fargo, N D	15.00		
T. H. Inman, Hanover, Wis		10.00	
F. A. Squires & Son, Blue Earth			Com.
Bull calf, under one year and over four months—			
G. S. Barnes, Fargo, N. D	10.00		
H. W. Ayers, Honey Creek, Wis		5.00	
F. A. Squires & Son, Blue Earth			Com.

	1st Prem.	2d Prem.	3d Prem.
Cow, three years old or over—			
G. S. Barnes, Fargo, N. D	15.00		
T. H. Inman, Hanover, Wis		10.00	
T. H. Inman, Hanover, Wis			Com.
Heifer, two years old and under three—			
G. S. Barnes, Fargo, N. D	15.00		
T. H. Inman, Hanover, Wis		10.00	
F. A. Squires & Son, Blue Earth			Com.
Heifer, one year old and under two—			
T. H. Inman, Hanover. Wis	15.00		
G. S. Barnes, Fargo, N. D		10.00	
T. H. Inman, Hanover, Wis			Com.
Heifer calf, under one year and over four months—			
T. H. Inman, Hanover, Wis	10.00		
G. S. Barnes, Fargo, N. D		5.00	
T. H. Inman, Hanover, Wis			Com.

HERDS.

	1st Prem.	2d Prem.	3d Prem.
Herd young cattle, to consist of one bull and four females, under two years old (females bred by exhibitor)—			
G. S. Barnes, Fargo, N. D	25.00		
T. H. Inman, Hanover, Wis		10.00	
Get of one sire, four animals of either sex—			
G. S. Barnes, Fargo, N. D	25.00		
T. H. Inman, Hanover, Wis		10.00	
Produce of one cow, two animals of either sex—			
G. S. Barnes, Fargo, N. D	15.00		
T. H. Inman, Hanover, Wis		10.00	
Herd of one bull, any age; one cow, three years old or over; one cow, two years old and under three; one cow or heifer, one year old and under two, and one heifer, under one year old—			
T. H. Inman, Hanover, Wis	75.00		
G. S. Barnes, Fargo, N. D		50.00	
F. A. Squires & Son, Blue Earth			25.00

SWEEPSTAKES.

Champion male, two years old or over—	
T. H. Inman, Hanover, Wis	Diploma.
Champion female, two years old and over—	
G. S. Barnes, Fargo, N. D	Diploma.
Junior champion male, under two years old—	
G. S. Barnes, Fargo, N. D	Diploma.
Junior champion female, under two years old—	
T. H. Inman, Hanover, Wis	Diploma.

Class 28—Feeding Animals.

(Pure bred Cattle and Sheep are barred.)

The following premiums in this class are offered jointly by the Minnesota Live Stock Breeders' Association and the Minnesota State Agricultural Society, for Minnesota breeders only.

J. J. Furlong, President Minnesota Live Stock Breeders' Association.
C. N. Cosgrove, President Minnesota State Agricultural Society.

Cattle.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.
Steers for feeding (shown in groups of three)—					
Wm. Harvey, Wiscoy	$80.00				

SWEEPSTAKES.

Best single animal in any lot—	
Wm. Harvey, Wiscoy	$45.00

Sheep.

Lambs for feeding (shown in groups of five)—				
G. W. Baird, Edina Mills	$30.00			
Wm. Young, Havana, Wis		$24.00		
T. H Canfield, Lake Park			$18.00	
L. W. Orr, Afton				$12.00

SWEEPSTAKES.

Best single animal in any lot—	
G. W. Baird, Edina Mills	$20.00

Swine.

	1st Prem.	2d Prem.	3d Prem.
Brood sow and litter, of the lard type—			
L. C. Hodgson, Luverne	$20.00		
T. E. Bly, Brewster		$16.00	
C. H. Murphy, Caledonia			$10.00
Brood sow and litter, of the bacon type—			
G. A. Forgerson, Rosemount	20.00		
The best sow and litter, any breed or type—			
G. A. Forgerson, Rosemount	12.00		
L. C. Hodgson, Luverne		8.00	

National Hereford Show, Hamline, Minn., Sept. 1 to 6, 1902.

AWARDS IN DETAIL.

Section 1. Bull, three years old or over—$40, $30, $25, $20, $15, $10, $10, $5.
1st. March On 6th 96537, exhibited by Jas. A. Funkhouser, Plattsburg, Mo.
2nd. Beau Donald 5th 86142, exhibited by O. Harris, Harris, Mo.
3rd. Marmaduke 90033, exhibited by W. S. Van Natta & Son, Fowler, Ind.
4th. Premier 94208, exhibited by J. C. Adams, Moweaqua, Ill.
5th. Gordon 82130, exhibited by Thos. Kough, Taopi, Minn.

Section 2. Bull, two years old and under three—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Prime Lad 108911, George P. Henry, Goodenow, Ill.
2nd. Martinet 109801, Gudgell & Simpson, Independence, Mo.
3rd. Beaumont 134751, Steward & Hutcheon, Greenwood, Mo.
4th. March On 13th 106675, Geo. E. McEathron, Huron, S. D.

Section 3. Senior yearling bull—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Belisarius 126243, Gudgell & Simpson, Independence, Mo.
2nd. Good Enough 3d 119934, O. Harris, Harris, Mo.
3rd. Acme 120830, Steward & Hutcheon, Greenwood, Mo.
4th. Perfection 3d 119850, J. C. Adams, Moweaqua, Ill.
5th. Onward 120463, W. S. Van Natta & Son, Fowler, Ind.

Section 4. Junior yearling bull—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Bright Donald 128131, Gudgell & Simpson, Independence, Mo.
2nd. Beau March On 137563, C. N. Moore, Lees Summit, Mo.
3rd. Patience 3d 124100, O. Harris, Harris, Mo.
4th. Cassio 10th 135774, C. N. Moore, Lees Summit, Mo.
5th. Disputant 123685, Jas. A. Funkhouser, Plattsburg, Mo.
6th. Patience 4th 124101, O. Harris, Harris, Mo.

Section 5. Senior bull calf—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Rex Premier 145572, Gudgell & Simpson, Independence, Mo.
2nd. Mario 139964, Steward & Hutcheon, Greenwood, Mo.
3rd. Cyclone 140764, O. Harris, Harris, Mo.
4th. Disturber 139989, J. C. Adams, Moweaqua, Ill.
5th. Producer 134691, O. Harris, Harris, Mo.
6th. Defender 134674, O. Harris, Harris, Mo.
7th. Pretorian 143824, Gudgell & Simpson, Independence, Mo.

Section 6. Junior bull calf—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Benjamin Wilton 4th 140761, O. Harris, Harris, Mo.
2nd. Onward 12th 140941, Jas. A. Funkhouser, Plattsburg, Mo.
3rd. Henry Irving 137720, W. S. Van Natta & Son, Fowler, Ind.
4th. Beau Dandy 145564, Gudgell & Simpson, Independence, Mo.
5th. Rex Welcome 145573, Gudgell & Simpson, Independence, Mo.
6th. Donald March On 137719, W. S. Van Natta & Son, Fowler, Ind.

Section 7. Cow, three years old or over—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Russet 73664, O. Harris, Harris, Mo.
2nd. Modesty 97971, Gudgell & Simpson, Independence, Mo.
3rd. Florence H 78750, Jas. A. Funkhouser, Plattsburg, Mo.
4th. Betty 2d 76805, J. C. Adams, Moweaqua, Ill.
5th. Mischievous 71758, Gudgell & Simpson, Independence, Mo.
6th. Lady Jane 96528, W. S. Van Natta & Son, Fowler, Ind.

Section 8. Cow or heifer, two years old and under three—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Queenly 108733, W. S. Van Natta & Son, Fowler, Ind.
2nd. Miss Caprice 109725, Gudgell & Simpson, Independence, Mo.
3rd. Boquet 105071, Jas. A. Funkhouser, Plattsburg, Mo.
4th. Silver Cup 104716, O. Harris, Harris, Mo.
5th. Silver Lining 5th 109726, Gudgell & Simpson, Independence, Mo.
6th. Pretty Lady 25th 121411, Gudgell & Simpson, Independence, Mo.
7th. Bright Duchess 32d 109733, J. C. Adams, Moweaqua, Ill.

Section 9. Senior yearling heifer—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Lucile 2d 119938, O. Harris, Harris, Mo.
2nd. Miss Columbine 120461, W. S. Van Natta & Son, Fowler, Ind.
3rd. Priscilla 5th 129538, Gudgell & Simpson, Independence, Mo.
4th. Modesty 3d 126247, Gudgell & Simpson, Independence, Mo.
5th. Lady Good Saxon 119937, O. Harris, Harris, Mo.
6th. Troublesome 119946, J. C. Adams, Moweaqua, Ill.
7th. Elsie March On 120439, Jas. A. Funkhouser, Plattsburg, Mo.

Section 10. Junior yearling heifer—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Romaine 123697, Jas. A. Funkhouser, Plattsburg, Mo.
2nd. Madge 126274, Steward & Hutcheon, Greenwood, Mo.
3rd. Kassie 4th 119936, O. Harris, Harris, Mo.
4th. Roma 123696, Jas. A. Funkhouser, Plattsburg, Mo.
5th. Carmine 2d 125176, C. N. Moore, Lees Summit, Mo.
6th. Gipsy Lady 2d 126246, Gudgell & Simpson, Independence, Mo.
7th. Betty 3d 124092, J. C. Adams, Moweaqua, Ill.
8th. Queen C 126275, Steward & Hutcheon, Greenwood, Mo.

Section 11. Senior heifer calf—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Tess 134696, O. Harris, Harris, Mo.
2nd. Beau's Queen 139835, Steward & Hutcheon, Greenwood, Mo.
3rd. Rosalie 137725, W. S. Van Natta & Son, Fowler, Ind.
4th. Honora 5th 145568, Gudgell & Simpson, Independence, Mo.
5th. Handsome 139836, Steward & Hutcheon, Greenwood, Mo.
6th. Velvet 134739, Jas. A. Funkhouser, Plattsburg, Mo.
7th. Lady Jaqueline 137721, W. S. Van Natta & Son, Fowler, Ind.
8th. Minnehaha 134684, O. Harris, Harris, Mo.

Section 12. Junior heifer calf—$40, $30, $25, $20, $15, $10, $10, $5.
1st. Gladys 143626, Steward & Hutcheon, Greenwood, Mo.
2nd. Sister Perfection 139658, J. C. Adams, Moweaqua, Ill.
3rd. Amelia 140758, O. Harris, Harris, Mo.
4th. Priscilla 7th 145571, Gudgell & Simpson, Independence, Mo.
5th. Delta 140936, Jas. A. Funkhouser, Plattsburg, Mo.
6th. Hattie 143627, Steward & Hutcheon, Greenwood, Mo.
7th. Julia 140765, O. Harris, Harris, Mo.
8th. Lady Wilton 139657, J. C. Adams, Moweaqua, Ill.

Section 13. Sweepstakes, bull, two years old or over—$50.
1st. Prime Lad 108911, Geo. P. Henry, Goodenow, Ill.

Section 14. Sweepstakes, bull, under two years old—$50.
1st. Bright Donald 128131, Gudgell & Simpson, Independence, Mo.

Section 15. Sweepstakes, female, two years old or over—$50.
1st. Queenly 108933, W. S. Van Natta & Son, Fowler, Ind.

Section 16. Sweepstakes, female, under two years old—$50.
1st. Romaine 123697, Jas. A. Funkhouser, Plattsburg, Mo.

Section 17. Sweepstakes, bull, any age—$50.
1st. Prime Lad 108911, Geo. P. Henry, Goodenow, Ill.

Section 18. Sweepstakes, female, any age—$50.
1st. Queenly 108933, W. S. Van Natta & Son, Fowler, Ind.

Section 19. Aged herd—$100, $80, $60, $40, $20.
1st. Herd headed by Beau Donald 5th 86142, O. Harris.
2nd. Herd headed by Martinet 109801, Gudgell & Simpson.
3rd. Herd headed by March On 6th 96537, Jas. A. Funkhouser.
4th. Herd headed by Premier 94208, J. C. Adams.
5th. Herd headed by Marmaduke 90033, W. S. Van Natta & Son.

Section 20. Young herd—$100, $80, $60, $40, $20.
1st. Herd headed by Goodenough 3d 119934, O. Harris.
2nd. Herd headed by Acme 120830, Steward & Hutcheon.
3rd. Herd headed by Bright Donald 128131, Gudgell & Simpson.
4th. Herd headed by Onward 12th 140941, Jas. A. Funkhouser.
5th. Herd headed by Henry Irving 137720, W. S. Van Natta & Son.

Section 21. Calf herd—$100, $80, $60, $40, $20.
1st. Herd headed by Mario 139964, Steward & Hutcheon.
2nd. Herd headed by Cyclone 140764, O. Harris.
3rd. Herd headed by Rex Premier 145572, Gudgell & Simpson.
4th Herd headed by Henry Irving 137720, W. S. Van Natta & Son.

Section 22. Best herd in show—Silver service valued at $200, given by the Merchants Hotel, St. Paul, Minn.
1st. Young herd headed by Goodenough 3d 119934, O. Harris, Harris, Mo.

Section 23. Two animals, produce of one cow—$50, $40, $30, $20, $10.
1st. Produce of Melley May 41752, J. C. Adams.
2nd. Produce of Pretty Lady 16th 56707, Gudgell & Simpson.
3rd. Produce of Mignonette 7th 46847, Gudgell & Simpson.
4th. Produce of Margery 71745, Steward & Hutcheon.
5th. Produce of Oral 51644, Jas. A. Funkhouser.

Section 24. Four animals, get of one sire—$60, $50, $40, $25, $15.
1st. Get of Benjamin Wilton 63828, O. Harris.
2nd. Get of Lamplighter 51834, Gudgell & Simpson.
3rd. Get of March On 6th 96537, Jas. A. Funkhouser.
4th. Get of Beau Brummel 51817, Gudgell & Simpson.
5th. Get of March On 76035, W. S. Van Natta & Son.

Fat Stock—Pure Breds.

Section 1. Steer, two years old and under three—$40, $30, $20.
1st. Hickory Grove, Geo. P. Henry, Goodenow, Ill.
2nd. Donald, Gudgell & Simpson, Independence, Mo.

Section 2. Steer, one year old and under two—$40, $30, $20.
1st. Valiant Lad, Geo. P. Henry, Goodenow, Ill.
2nd. Otto, Steward & Hutcheon, Greenwood, Mo.

Section 3. Steer, under one year old—$40, $30, $20.
1st. Brilliant Lad, Geo. P. Henry, Goodenow, Ill.
2nd. Hector, Steward & Hutcheon, Greenwood, Mo.

Section 4. Best steer, any age—$50.
1st. Valiant Lad, Geo. P. Henry, Goodenow, Ill.

Fat Stock—Grade Herefords.

Section 5. Steer, two years old and under three—$35, $25, $20.
1st. Prince Edward, Geo. P. Henry, Goodenow, Ill.
2nd. Roan Lad, Steward & Hutcheon, Greenwood, Mo.

Section 6. Steer, one year old and under two—$35, $25, $20.
No entries.

Section 7. Steer, under one year old—$35, $25, $20.
1st. Edna, Geo. P. Henry, Goodenow, Ill.
2nd. Robin, Steward & Hutcheon, Greenwood, Mo.

Section 8. Sweepstakes, steer, any age—
1st. Prince Edward, Geo. P. Henry, Goodenow, Ill.

SALE LIST.

Hamline, Minn., Sept. 2 and 3, 1902.

Name.	Purchaser.	Price.
Tricksy 118815	B. F. Martin, Clear Lake, Minn	$170
Iva 138592	A. F. Renner, Pelican Rapids, Minn	265
Osceola 128059	Elizabeth Berresford, Leonard, N. D	140
Sunshine 3d 115295	O. Harris, Harris, Mo	275
Disputant 123685	Daniel Peterson, Dunnell, Minn	285
Miss Nellie Bly 8th 84234	R. A. Wilkinson, Crookston, Minn	600
Mamselle 2d 71087	L. E. Potter, Springfield, Minn	305
Pansy Blossom 135779	O. W. Healy, Mapleton, Minn	145
Dorena H. 134243	Jas. A. Funkhouser, Plattsburg, Mo	165
Sylph 4th 81698	B. F. Martin, Clear Lake, Minn	275

Kremlin 143391, G. O. Peterson, Donnelly, Minn	100
Christmas Gift 2d 112440, L. E. Potter, Springfield, Minn	170
Lady Real 36th 116272, R. A. Wilkinson, Crookston, Minn	210
Psyche 138614, B. F. Martin, Clear Lake, Minn	285
Muriel 128058, E. McColley, Delavan, Minn	145
Archie 136162, Lawrence Tuohy, Chatfield, Minn	135
Valeta 110221, B. F. Martin, Clear Lake, Minn	180
Dubert 134245, Jas. A. Nowell, St. Paul, Minn	140
Merri Osborn 75722, L. E. Potter, Springfield, Minn	355
Pandora 100262, G. A. McCrea, Drayton, N. D	195
Gentry Hesiod 25th 116140, R. G. Ranney, Little York, Ill	115
Zorata 11th 118005, Daniel Peterson, Dunnell, Minn	205
Miss Bessie 2d 119331, R. A. Wilkinson, Crookston, Minn	350
Peerless Hayes 17771, R. A. Wilkinson, Crookston, Minn	225
Luminous 143392, O. W. Healy, Mapleton, Minn	100
Lady Hesiod 33d 116197, R. A. Wilkinson, Crookston, Minn	185
Gaiety 138582, F. A. Nave, Attica, Ind	335
Becky Sharp 118175, Daniel Peterson, Dunnell, Minn	125
Keep On 25th 134910, Warren Denzer, Le Sueur Center, Minn	205
Daisette Grove 125612, August Hecker, Randolph, Minn	220
Sprite 16th 143825, L. L. Ellsworth, Cannon Falls, Minn	225
Lorena 136022, J. N. Neal, Jr., Bristow, Ia	170
Daniel 134241, Bennett Meline, Red Wing, Minn	150
Bessie Beau Monde 71021, R. A. Wilkinson, Crookston, Minn	260
Gentry Hesiod 51st 129596, Jas. A. Funkhouser, Plattsburg, Mo	150
Hortense 138530, L. E. Potter, Springfield, Minn	300
Pretorian 143824, Geo. E. McEathron, Huron, S. D	260
Morris 123693, H. F. Eaton, Ludden, N. D	165
Patience 124101, Jas. Carpenter, Forest River, N. D	165
Duroc 134745, Mark H. Sherman, Eau Claire, Wis	85
Rosebud 127271, R. A. Wilkinson, Crookston, Minn	600
Idalia 6th 117373, L. E. Potter, Springfield, Minn	305
Lady Hayes 117766, Aug. Haedecke, Randolph, Minn	255
Java 9th 134909, R. A. Wilkinson, Crookston, Minn	150
Olivette 136734, J. N. Neal, Jr., Bristow, Ia	160
Lady Hesiod 28th 116192, J. N. Neal, Jr., Bristow, Ia	135
Betty 138568, Geo. P. Henry, Goodenow, Ill	255
Wenona 4th 71811, L. E. Potter, Springfield, Minn	195
Florida 108698, Minn. Exp. Sta., St. Anthony Park, Minn	430
Arminta 4th 112439, L. E. Potter, Springfield, Minn	210
Druid, Jr. 128922, R. A. Wilkinson, Crookston, Minn	175
Longhorns 9th 117374, Warren Denzer, Le Sueur Center, Minn	230
Eudora Hayes 117762, Aug. Haedecke, Randolph, Minn	160
Gentry Real 47th 116153, R. A. Wilkinson, Crookston, Minn	150
Godiva 138092, Warren Denzer, Le Sueur Center, Minn	400
Mariana 4th 143823, O. Harris, Harris, Mo	225
Arie 126066, Daniel Peterson, Dunnell, Minn	150
Blanche 136018, Warren Denzer, Le Sueur Center, Minn	155
Miss Simpson 29th 116231, Daniel Peterson, Dunnell, Minn	175
Prosecutor 144679, A. L. Wells, Brewster, Minn	150

SHORTHORNS.

Premiums awarded	$3,445.00

Bull, three years old or over—

Choice goods, G. M. Casey, Clinton, Mo., first premium	$40.00
Golden Victor, Geo. Harding & Son, Waukesha, Wis., second premium	30.00
Speculator, Delphi, Ind., third premium	25.00
Ajax of Cluny, C. E. Clark, St. Cloud, fourth premium	20.00
Jubilee Knight, Thompson Cattle Co., Minneapolis, fifth premium	15.00

Bull, two years old and under three—	
Nonpareil, Geo. Harding & Son, Waukesha, Wis., first premium	40.00
Valley Count, T. J. Wornell & Son, Liberty, Mo., second premium	30.00
Marmaduke 2nd, C. F. Rice, Indianola, Ill., third premium	25.00
Pitlivie Merry Lad, C. E. Clark, St. Cloud, fourth premium	20.00
Lord Darnley, A. Alexander, Morning Sun, Ia., fifth premium	15.00
Senior yearling bull, dropped between Sept. 1, 1900, and Jan. 1, 1901—	
Young Nominee, Browndale farm, Minneapolis, first premium	40.00
Prince of Tebo Lawn, G. M. Casey, Clinton, Mo., second premium	30.00
Junior yearling bull, dropped between Jan. 1, 1901, and Sept. 1, 1901—	
Ceremonious Archer, Geo. Harding & Son, Waukesha, Wis., first premium	40.00
Nonpareil Star, Geo. Bothwell, Nettleton, Mo., second premium	30.00
Pride of Meadow Lawn, C. E. Clark, St. Cloud, Minn., third premium	25.00
Magnet, E. W. Bowen, Delphi, Ind., fourth premium	20.00
Favorite Boy, C. F. Rice, Indianola, Ill., fifth premium	15.00
Sharon Victor, Geo. Bothwell, Nettleton, Mo., sixth premium	10.00
Senior bull calf, dropped between Sept. 1, 1901, and Jan. 1, 1902—	
Nonpareil Comet, Geo. Bothwell, Nettleton, Mo., first premium	40.00
Ravenswood Admiration, T. J. Wornall & Son, Liberty, Mo., second premium	30.00
Victor Missie, Geo. Harding & Son, Waukesha, Wis., third premium	25.00
Fearless Victor, N. A. Lind, Rolfe, Ia., fourth premium	20.00
Nonpareil Stamp, Geo. Bothwell, Nettleton, Mo., fifth premium	15.00
Expectation, T. J. Wornell & Son, Liberty, Mo., sixth premium	10.00
Junior bull calf, dropped since Jan. 1, 1902—	
The Rustler, G. M. Casey, Clinton, Mo., first premium	40.00
Nonpareil Choice, Geo. Bothwell, Nettleton, Mo., second premium	30.00
Meadow King, Geo. Harding & Son, Waukesha, Wis., third premium	25.00
Clover Bud, Geo. Bothwell, Nettleton, Mo., fourth premium	20.00
Royal Wonder, C. E. Clark, St. Cloud, Minn., fifth premium	15.00
Flower King, C. F. Rice, Indianola, Ill., sixth premium	10.00
Cruickshan's Model, L. W. Orr, Afton, Minn., seventh premium	10.00
Baron Gloster, A. Alexander, Morning Sun, eighth premium	5.00
Cow, three years old or over—	
Ruberta, G. M. Casey, Clinton, Mo., first premium	40.00
Missie 165th, E. W. Bowen, Delphi, Ind., second premium	30.00
55th, Duchess of Gloster, Geo. Harding & Son, Waukesha, Wis., third premium	25.00
Stella, E. W. Bowen, Delphi, Ind., fourth premium	20.00
Josephine, C. F. Rice, Indianola, Ill., fifth premium	15.00
Welcome of Meadow Lawn 6th, C. E. Clark, St. Cloud, sixth premium	10.00
Princess Violet, G. M. Casey, Clinton, Mo., seventh premium	10.00
Geranium 2nd, A. Alexander, Morning Sun, Ia., eighth premium	5.00
Heifer, two years old and under three—	
Clarissa, G. M. Casey, Clinton, Mo., first premium	40.00
Golden Fame's Belle, Geo. Harding & Son, Waukesha, Wis., second premium	30.00
Oneida, E. W. Bowen, Delphi, Ind., third premium	25.00
Lovely Maid, C. E. Clark, St. Cloud, fourth premium	20.00
Nellie of Ellerslie, G. M. Casey, Clinton, Mo., fifth premium	15.00
Rosalie, C. F. Rice, Indianola, Ill., sixth premium	10.00
Christmas Gift, A. Alexander, Morning Sun, Ia., seventh premium	10.00
White Rose, Geo. Harding & Son, Waukesha, Wis., eighth premium	5.00
Senior yearling heifer, dropped between Sept. 1, 1900, and Jan. 1, 1901—	
Queen of Beauty, E. W. Bowen, Delphi, Ind., first premium	40.00
Peach, T. J. Wornall & Son, Liberty, Mo., second premium	30.00
Gloster Girl, Geo. Harding & Son, Waukesha, Wis., third premium	25.00
Spicy of Browndale, Browndale farm, Minneapolis, fourth premium	20.00
Lad's Goldie, G. M. Casey, Clinton, Mo., fifth premium	15.00
Massa's Girl, A. Alexander, Morning Sun, Ia., sixth premium	10.00
Orange Blossom of Fairview 3rd, C. E. Clark, St. Cloud, seventh premium	10.00
Maid of Honor, C. F. Rice, Indianola, Ill., eighth premium	5.00

Junior yearling heifer, dropped between Jan. 1, 1901, and Sept. 1, 1901—	
Spicy of Browndale 13th, Browndale farm, Minneapolis, first premium	40.00
Spicy Clara, Geo. Harding & Son, Waukesha, Wis., second premium	30.00
Jennie June, T. J. Wornall & Son, Liberty, Mo., third premium	25.00
Julia K., T. J. Wornall & Son, Liberty, Mo., fourth premium	20.00
Sharon Lady, Geo. Bothwell, Nettleton, Mo., fifth premium	15.00
Wild Scottish, Geo. Bothwell, Nettleton, Mo., sixth premium	10.00
Carnation 53, C. F. Rice, Indianola, Ill., seventh premium	10.00
Anoka Village Gem 53d, Geo. Harding & Son, Waukesha, Wis., eighth premium	5.00
Senior heifer calf, dropped between Sept. 1, 1901, and Jan. 1, 1902—	
Rosemary of Browndale 8th, Browndale farm, Minneapolis, first premium	40.00
Sweet Violet 4th, G. M. Casey, Clinton, Mo., second premium	30.00
Breeders' Fame, Geo. Bothwell, Nettleton, Mo., third premium	25.00
The Runaway Girl, G. M. Casey, Clinton, Mo., fourth premium	20.00
Queen Louise, T. J. Wornall, Liberty, Mo., fifth premium	15.00
Herdsman's Dream, Geo. Bothwell, Nettleton, Mo., sixth premium	10.00
Lady Dorothea, C. E. Clark, St. Cloud, seventh premium	10.00
Roseblush, George Harding & Son, Waukesha, Wis., eighth premium	5.00
Junior heifer calf, dropped since Jan. 1, 1902—	
Nellie of Meadow Lawn, C. E. Clark, St. Cloud, first premium	40.00
Spicy of Browndale 14th, Browndale farm, Minneapolis, second premium	30.00
Rubertress, G. M. Casey, Clinton, Mo., third premium	25.00
Princess Maud 6th, Geo. Harding & Son, Waukesha, Wis., fourth premium	20.00
Clover Blossom Beauty, Geo. Bothwell, Nettleton, Mo., fifth premium	15.00
Purity, Geo. Bothwell, Nettleton, Mo., sixth premium	10.00
Welcome of Meadow Lawn, C. E. Clark, St. Cloud, seventh premium	10.00
Maid of Honor, Geo. Harding & Son, Waukesha, Wis., eighth premium	5.00
Senior sweepstakes, bull, two years old or over—	
Choice Goods, G. M. Casey, Clinton, Mo	50.00
Junior sweepstakes, bull, under two years old—	
Miss Young Nominee, H. F. Brown, Minneapolis	50.00
Senior sweepstakes, cow or heifer, two years old or over—	
Ruberta, G. M. Casey, Clinton, Mo	50.00
Junior sweepstakes, heifer, under two years old—	
Queen of Beauty, E. W. Bowen, Delphi, Ind	50.00
Grand sweepstakes, best bull, any age—	
Choice goods, G. M. Casey, Clinton, Mo	50.00
Grand sweepstakes, best cow or heifer, any age—	
Ruberta, G. M. Casey, Clinton, Mo	50.00

AGED HERD.

G. M. Casey, Clinton, Mo	100.00
Geo. Harding & Son, Waukesha, Wis	80.00
E. W. Bowen, Delphi, Ind	60.00
C. E. Clark, St. Cloud, Minn	40.00
C. F. Rice, Indianola, Ill	20.00

YOUNG HERD.

Browndale Farm, Minneapolis	100.00
T. J. Wornall & Son, Liberty, Mo	80.00
Geo. Harding & Son, Waukesha, Wis	60.00
Geo. Bothwell, Nettleton, Mo	40.00
C. F. Rice, Indianola, Ill	20.00

CALF HERD.

Geo. Bothwell, Nettleton, Mo	100.00
Geo. Harding & Son, Waukesha, Wis	80.00
C. E. Clark, St. Cloud, Minn	60.00
C. F. Rice, Indianola, Ill	40.00

SWEEPSTAKES—MERCHANTS HOTEL SPECIAL.

H. F. Brown, Minneapolis.

GROUPS.

Four animals of either sex, the produce of one cow—

G. M. Casey, Clinton, Mo	50.00
Geo. Harding & Son, Waukesha, Wis	40.00
Browndale Farm, Minneapolis	30.00
G. M. Casey, Clinton, Mo	20.00
C. F. Rice, Indianola, Ill	10.00

Four animals of either sex, the get of one sire—

T. J. Wornall, Liberty, Mo	60.00
Geo. Bothwell, Nettleton, Mo	50.00
Geo. Harding & Son, Waukesha, Wis	40.00
G. M. Casey, Clinton, Mo	25.00
C. F. Rice, Indianola, Ill	15.00

Class 2—Fat Stock.

PURE BREDS.

	1st Prem.	2nd Prem.
Steer, spayed or martin heifer, one year old and under two—		
Eli, Wm. Smiley, Malcom, Ia	$40.00	
General, C. E. Clark, St. Cloud, Minn		$30.00
Steer, spayed or martin heifer, under one year old—		
Eli, Wm. Smiley, Malcom, Ia	50.00	
Steer, spayed or martin heifer, two years old and under three—		
Roan Consul, Wm. Smiley, Malcom, Ia	35.00	
Red Consul, Wm. Smiley, Malcom, Ia		25.00
Steer, spayed or martin heifer, under one year old—		
Major, C. E. Clark, St. Cloud	35.00	

SWEEPSTAKES, GRADE SHORTHORNS.

Roan Consul, Wm. Smiley, Malcom, Ia	40.00

SHORTHORN SALE—HAMLINE, MINN., SEPT. 4, 1902.

No.	Consignor.	Price.	Purchaser.
1.	C. C. Bigler & Sons, Hartwick, Ia.	$1,000	Brown, Randolph & Brown, Indianola, Ia.
2.	C. C. Bigler & Sons, Hartwick, Ia.	780	E. R. Stangland, Marathon, Ia.
3.	C. C. Bigler & Sons, Hartwick, Ia.	.....	
4.	C. C. Bigler & Sons, Hartwick, Ia.	480	H. F. Brown, Minneapolis.
5 and calf.	N. A. Lind, Rolfe, Ia.	710	H. F. Brown, Minneapolis.
6.	N. A. Lind, Rolfe, Ia.	700	R. A. Wilkinson, Crookston.
7.	N. A. Lind, Rolfe, Ia.	515	R. A. Wilkinson, Crookston.
8.	N. A. Lind, Rolfe, Ia.	1,500	John Lister, Conrad, Ia.
9.	Browndale Farm, Minneapolis	900	Mrs. R. A. Wilkinson, Crookston.
10.	Withdrawn.		
11 and calf.	Browndale Farm	500	Geo. McDonald, Sioux Falls, S. D.
12.	E. R. Stangland, Marathon, Ia	600	A. B. Carter, West Bend, Ia.
13.	E. R. Stangland, Marathon, Ia	515	C. E. Clarke, St. Cloud.
14.	E. R. Stangland, Marathon, Ia	375	Hector Cowan, Paullina, Ia.
15.	Geo. Harding & Son, Waukesha	1,005	C. C. Bigler & Sons, Hartwick, Ia.
16.	Geo. Harding & Son, Waukesha	405	F. B. Glidden, Britt, Ia.
17.	Geo. Harding & Son, Waukesha	400	D. B. Searle, St. Cloud.
18.	C. E. Clarke, St. Cloud	425	R. A. Wilkinson, Crookston.
19.	C. E. Clarke (substitute)	210	J. J. Furlong, Austin.
20 and calf.	C. E. Clarke	560	D. B. Searle, St. Cloud.
21.	C. E. Clarke	215	Y. H. Merrifield, Monango, N. D.
22.	N. A. Lind, Rolfe, Ia.	570	E. K. Christenson, New Point, Mo.
23.	"A"	405	A. B. Carter, West Bend, Ia.
24.	"A"	315	A. H. Brett, Mason City, Ia.
25.	E. R. Stangland, Marathon, Ia	250	H. F. Brown, Minneapolis.
26.	E. R. Stangland, Marathon, Ia	250	Brown, Randolph & Igo.
27 and calf.	E. R. Stangland	260	H. E. Anderson, Lake Lillian.
28.	Geo. Harding & Son	220	R. A. Wilkinson, Crookston.
29.	Geo. Bothwell, Nettleton, Mo.	375	O. A. Strand, Zumbrota.
30.	C. C. Bigler & Sons	555	J. H. Anderson, Madelia.
31 and calf.	C. C. Bigler & Sons	370	A. H. Brett, Mason City, Ia.
32 and calf.	C. C. Bigler & Sons	305	J. H. Anderson, Madelia.
33 and calf.	C. C. Bigler & Sons	375	D. B. Searle, St. Cloud.
34.	C. C. Bigler & Sons	300	H. L. Pitts, Adler, N. D.
35.	Not here.		
36.	C. C. Bigler & Sons	450	Brown, Randolph & Igo.
37 and calf.	Browndale Farm	310	J. W. Smith, Fargo, N. D.
38 and calf.	Browndale Farm	350	H. L. Pitts, Adler, N. D.
39.	Thompson Cattle Co.	315	John Thompson, Patch Grove, Wis.
40.	C. E. Clarke	200	W. O. Merz, Monticello.
41.	C. E. Clarke	415	D. B. Searle, St. Cloud.
42.	C. E. Clarke	255	W. O. Merz, Monticello.
43.	C. E. Clarke	305	R. A. Wilkinson, Crookston.
44.	C. E. Clarke	235	W. O. Merz, Monticello.
45.	Geo. Bothwell	340	H. L. Pitts, Adler, N. D.
46.	John Cooper	550	H. W. Stone, Benson.
47 and calf.	D. B. Searle	450	R. A. Wilkinson, Crookston.
48 and calf.	D. B. Searle	415	W. O. Merz, Monticello.
49.	Geo. Bothwell	130	C. S. Crandall, Owatonna.
50.	D. B. Searle	300	L. A. Huntoon, Moorhead.
51.	T. J. Wornall & Son, Liberty, Mo.	235	F. W. Orth, Morton.

DIVISION C—SHEEP.

Superintendent, J. C. Mills, Preston.
Assistant Superintendent, Chas. P. Taylor, Hamline.
Judges, Chas. Kerr, W. T. Potts, Geo. D. Little.

Premiums awarded..$1,880.00

Class 29—Merino.

	1st Prem.	2d Prem.	3d Prem.
Ram, two years old or over—			
H. E. Moore, Orchard Lake	$10.00		
Wm. S. Dixon, Brandon, Wis		$5.00	
Wm. S. Dixon, Brandon, Wis			$3.00

	1st Prem.	2d Prem.	3d Prem.
Ram, one year old—			
Wm. S. Dixon, Brandon, Wis	10.00		
H. E. Moore, Orchard Lake		5.00	
H. E. Moore, Orcard Lake			3.00
Ram lamb—			
H. E. Moore, Orchard Lake	10.00		
H. E. Moore, Orchard Lake		5.00	
Wm. S. Dixon, Brandon, Wis			3.00
Ewe, two years old or over—			
Wm. S. Dixon, Brandon, Wis	10.00		
Wm. S. Dixon, Brandon, Wis		5.00	
H. E. Moore, Orchard Lake			3.00
Ewe, one year old—			
Wm. S. Dixon, Brandon, Wis	10.00		
Wm. S. Dixon, Brandon, Wis		5.00	
H. E. Moore, Orchard Lake			3.00
Ewe lamb—			
H. E. Moore, Orchard Lake	10.00		
H. E. Moore, Orchard Lake		5.00	
Wm. S. Dixon, Brandon, Wis			3.00

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
H. E. Moore, Orchard Lake	15.00		
Wm. S. Dixon, Brandon, Wis		10.00	

SWEEPSTAKES.

One ram, any age—			
H. E. Moore, Orchard Lake	10.00		
One ewe, any age—			
H. E. Moore, Orchard Lake	10.00		

Class 30—Delaine.

Ram, two years old or over—			
C. H. Williams, Pittsford, Mich	$10.00		
H. E. Moore, Orchard Lake		$5.00	
C. H. Williams, Pittsford, Mich			$3.00
Ram, one year old—			
H. E. Moore, Orchard Lake	10.00		
C. H. Williams, Pittsford, Mich		5.00	
C. H. Williams, Pittsford, Mich			3.00
Ram lamb—			
H. E. Moore, Orchard Lake	10.00		
C. H. Williams, Pittsford, Mich		5.00	
H. E. Moore, Orchard Lake			3.00
Ewe, two years old or over—			
H. E. Moore, Orchard Lake	10.00		
C. H. Williams, Pittsford, Mich		5.00	
H. E. Moore, Orchard Lake			3.00
Ewe, one year old—			
H. E. Moore, Orchard Lake	10.00		
C. H. Williams, Pittsford, Mich		5.00	
C. H. Williams, Pittsford, Mich			3.00
Ewe lamb—			
C. H. Williams, Pittsford, Mich	10.00		
C. H. Williams, Pittsford, Mich		5.00	
H. E. Moore, Orchard Lake			3.00

FLOCK.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
C. H. Williams, Pittsford, Mich	15.00		
H. E. Moore, Orchard Lake		10.00	

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age—			
C. H. Williams, Pittsford, Mich	10.00		
One ewe, any age—			
H. E. Moore, Orchard Lake	10.00		

Class 31—Rambouillet.

	1st Prem.	2d Prem.	3d Prem.
Ram, two years old or over—			
Geo. Harding & Son, Waukesha, Wis	$10.00		
Geo. Harding & Son, Waukesha, Wis		$5.00	
Cole Bros., Spring Grove, Ill			$3.00
Ram, one year old—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Cole Bros., Spring Grove, Ill		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ram lamb—			
Cole Bros., Spring Grove, Ill	10.00		
Cole Bros., Spring Grove, Ill		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ewe, two years old or over—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
Cole Bros., Spring Grove, Ill			3.00
Ewe, one year old—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ewe lamb—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Cole Bros., Spring Grove, Ill		5.00	
Cole Bros., Spring Grove, Ill			3.00

FLOCK.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Geo. Harding & Son, Waukesha, Wis	15.00		
Geo. Harding & Son, Waukesha, Wis		10.00	

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Ram, any age—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Ewe, any age—			
Geo. Harding & Son, Waukesha, Wis	10.00		

Class 32—Cotswold.

	1st Prem.	2d Prem.	3d Prem.
Ram, two years old or over—			
Geo. Harding & Son, Waukesha, Wis	$10.00		
W. S. Dixon, Brandon, Wis		$5.00	
Geo. Harding & Son, Waukesha, Wis			$3.00

	1st Prem.	2d Prem.	3d Prem.
Ram, one year old—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ram lamb—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ewe, two years old or over—			
Geo. Harding & Son, Waukesha, Wis	10.00		
W. S. Dixon, Brandon, Wis		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ewe, one year old—			
W. S. Dixon, Brandon, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
Geo. Harding & Son, Waukesha, Wis			3.00
Ewe lamb—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Geo. Harding & Son, Waukesha, Wis		5.00	
W. S. Dixon, Brandon, Wis			3.00

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Geo. Harding & Son, Waukesha, Wis	15.00		
Geo. Harding & Son, Waukesha, Wis		10.00	

SWEEPSTAKES.

One ram, any age—			
Geo. Harding & Son, Waukesha, Wis	10.00		
One ewe, any age—			
Geo. Harding & Son, Waukesha, Wis	10.00		

Class 33—Oxford Down.

Ram, two years old or over—			
Geo. McKerrow & Son, Sussex, Wis	$10.00		
Geo. McKerrow & Son, Sussex, Wis		$5.00	
W. S. Dixon, Brandon, Wis			$3.00
Ram, one year old—			
R. J. Stone, Allerton, Ill	10.00		
Geo. McKerrow, Sussex, Wis		5.00	
Geo. McKerrow & Son, Sussex, Wis			3.00
Ram lamb—			
R. J. Stone, Allerton, Ill	10.00		
Geo. McKerrow, Sussex, Wis		5.00	
Geo. McKerrow, Sussex, Wis			3.00
Ewe, two years old or over—			
Geo. McKerrow & Son, Sussex, Wis	10.00		
R. J. Stone, Allerton, Ill		5.00	
Geo. McKerrow & Son, Sussex, Wis			3.00
Ewe, one year old—			
Geo. McKerrow & Son, Sussex, Wis	10.00		
R. J. Stone, Allerton, Ill		5.00	
W. S. Dixon, Brandon, Wis			3.00
Ewe lamb—			
Geo. McKerrow & Son, Sussex, Wis	10.00		
Geo. McKerrow, Sussex, Wis		5.00	
R. J. Stone, Allerton, Ill			3.00

FLOCK.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Geo. McKerrow & Son, Sussex, Wis.	15.00		
R. J. Stone, Allerton, Ill		10.00	

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Ram, any age—			
Geo. McKerrow & Son, Sussex, Wis	10.00		
Ewe, any age—			
Geo. McKerrow & Son, Sussex, Wis	10.00		

SPECIAL PREMIUMS AMERICAN OXFORD DOWN RECORD ASSOCIATION.

	1st Prem.	2d Prem.	3d Prem.
Best yearling ewe—			
Minnesota Experimental Farm, St. Anthony Park	$6.00		
Minnesota Experimental Farm, St. Anthony Park		$4.00	
Best pen of four lambs (either sex)—			
Minnesota Experimental Farm, St. Anthony Park	6.00		
Minnesota Experimental Farm, St. Anthony Park		4.00	

Class 34—Leicester.

	1st Prem.	2d Prem.	3d Prem.
Ram, two years old or over—			
Robt. Taylor, Abbott, Neb	$10.00		
Wm. Young, Havana		$5.00	
Robt. Taylor, Abbott, Neb			$3.00
Ram, one year old—			
Robt. Taylor, Abbott, Neb	10.00		
Wm. Young, Havana		5.00	
Ram lamb—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Wm. Young, Havana			3.00
Ewe, two years old or over—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Wm. Young, Havana			3.00
Ewe, one year old—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Wm. Young, Havana			3.00
Ewe lamb—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Wm. Young, Havana			3.00

FLOCK.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Robt. Taylor, Abbott, Neb	15.00		
Robt. Taylor, Abbott, Neb		10.00	

SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.
Ram, any age—			
Robt. Taylor, Abbott, Neb	$10.00		
Ewe, any age—			
Robt. Taylor, Abbott, Neb		10.00	

Class 35—Shropshire Down.

	1st Prem.	2d Prem.	3d Prem.
Ram, two years old or over—			
Howard Davison, Millbrook, N. Y.	$10.00		
Howard Davison, Millbrook, N. Y.		$5.00	
Geo. Allen, Allerton, Ill.			$3.00
Ram, one year old—			
Howard Davison, Millbrook, N. Y.	10.00		
Geo. Allen, Allerton, Ill.		5.00	
Howard Davison, Millbrook, N. Y.			3.00
Ram lamb—			
Geo. Allen, Allerton, Ill.	10.00		
Howard Davison, Millbrook, N. Y.		5.00	
Howard Davison, Millbrook, N. Y.			3.00
Ewe, two years old or over—			
Howard Davison, Millbrook, N. Y.	10.00		
Geo. Allen, Allerton, Ill.		5.00	
Geo. Allen, Allerton, Ill.			3.00
Ewe, one year old—			
Howard Davison, Millbrook, N. Y.	10.00		
Geo. Allen, Allerton, N. Y.		5.00	
Howard Davison, Millbrook, N. Y.			3.00
Ewe lamb—			
Geo. Allen, Allerton, Ill.	10.00		
Howard Davison, Millbrook, N. Y.		5.00	
Howard Davison, Millbrook, N. Y.			3.00

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Howard Davison, Millbrook, N. Y.	15.00		
Geo. Allen, Allerton, Ill.		10.00	

SWEEPSTAKES

One ram, any age—			
Howard Davison, Millbrook, N. Y.	10.00		
One ewe, any age—			
Howard Davison, Millbrook, N. Y.	10.00		

Class 36—Southdowns.

Ram, two years old or over—			
Geo. McKerrow & Son, Sussex, Wis.	$10.00		
Geo. McKerrow & Son, Sussex, Wis.		$5.00	
Cole Bros., Spring Grove, Ill.			$3.00
Ram, one year old—			
Geo. McKerrow & Son, Sussex, Wis.	10.00		
Geo. Allen, Allerton, Ill.		5.00	
Geo. McKerrow, Sussex, Wis.			3.00
Ram lamb—			
Geo. Allen, Allerton, Ill.	10.00		
Geo. McKerrow & Son, Sussex, Wis.		5.00	
Cole Bros., Spring Grove, Ill.			3.00
Ewe, two years old or over—			
Geo. McKerrow & Son, Sussex, Wis.	10.00		
Cole Bros., Spring Grove, Ill.		5.00	
Geo. McKerrow & Son, Sussex, Wis.			3.00
Ewe, one year old—			
Geo. Allen, Allerton, Ill.	10.00		
Geo. McGerrow & Son, Sussex, Wis.		5.00	
Geo. McKerrow & Son, Sussex, Wis.			3.00

	1st Prem.	2d Prem.	3d Prem.
Ewe lamb—			
Geo. Allen, Allerton, Ill	10.00		
Geo. McKerrow & Son, Sussex, Wis		5.00	
Cole Bros., Spring Grove, Ill			3.00

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Geo. McKerrow & Son, Sussex, Wis	15.00		
Geo. Allen, Allerton, Ill		10.00	

SWEEPSTAKES.

One ram, any age—			
Geo. McKerrow & Son, Sussex, Wis	10.00		
One ewe, any age—			
Geo. Allen, Allerton, Ill	10.00		

Class 37—Dorset (Horned).

Ram, two years old or over—			
Boynton & Welch, Dexter	$10.00		
Ram lamb—			
Boynton & Welch, Dexter	10.00		
Ewe, two years old or over—			
Boynton & Welch, Dexter	10.00		
Boynton & Welch, Dexter		$5.00	
Ewe, one year old—			
Boynton & Welch, Dexter	10.00		
Ewe, lamb—			
Boynton & Welch, Dexter	10.00		
Boynton & Welch, Dexter		5.00	

Class 38—Hampshire.

Ram, two years old or over—			
Robt. Taylor, Abbott, Neb	$10.00		
Robt. Taylor, Abbott, Neb		$5.00	
Robt. Taylor, Abbott, Neb			$3.00
Ram, one year old—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Robt. Taylor, Abbott, Neb			3.00
Ram lamb—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
E. L. Pray, Minneapolis			3.00
Ewe, two years old or over—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
E. L. Pray, Minneapolis			3.00
Ewe, one year—			
Geo. Harding & Son, Waukesha, Wis	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Robt. Taylor, Abbott, Neb			3.00
Ewe lamb—			
Robt. Taylor, Abbott, Neb	10.00		
Robt. Taylor, Abbott, Neb		5.00	
Robt. Taylor, Abbott, Neb			3.00

FLOCK.

	1st Prem.	2d Prem.	3d Prem.
One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
Robt. Taylor, Abbott, Neb	15.00		
Robt. Taylor, Abbott, Neb		10.00	

SWEEPSTAKES.

Ram, any age—			
Robt. Taylor, Abbott, Neb	10.00		
Ewe, any age—			
Geo. Harding & Son, Waukesha, Wis	10.00		

Class 39—Cheviot.

Ram, two years old or over—			
F. B. Hartman, Fincastle, Ind	$10.00		
Ram, one year old—			
F. B. Hartman, Fincastle, Ind	10.00		
F. B. Hartman, Fincastle, Ind		$5.00	
W. A. Walker, Fincastle, Ind			$3.00
Ram lamb—			
F. B. Hartman, Fincastle, Ind	10.00		
W. A. Walker, Fincastle, Ind		5.00	
F. B. Hartman, Fincastle, Ind			3.00
Ewe, two years old or over—			
F. B. Hartman, Fincastle, Ind	10.00		
W. A. Walker, Fincastle, Ind		5.00	
Ewe, one year old—			
F. B. Hartman, Fincastle, Ind	10.00		
W. A. Walker, Fincastle, Ind		5.00	
Ewe lamb—			
F. B. Hartman, Fincastle, Ind	10.00		
F. B. Hartman, Fincastle, Ind		5.00	
W. A. Walker, Fincastle, Ind			3.00

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—			
F. B. Hartman, Fincastle, Ind	15.00		

SWEEPSTAKES.

One ram, any age—			
F. B. Hartman, Fincastle, Ind	10.00		
Ewe, any age—			
F. B. Hartman, Fincastle	10.00		

Class 40—Lincoln.

Ram, two years old or over—			
Boynton & Welch, Dexter	$10.00		
Boynton & Welch, Dexter		$5.00	
Ram, one year old—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		
Boynton & Welch, Dexter		5.00	
Boynton & Welch, Dexter			$3.00
Ram lamb—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		
Boynton & Welch, Dexter		5.00	
Boynton & Welch, Dexter			3.00

	1st Prem.	2d Prem.	3d Prem.
Ewe, two years old or over—			
Boynton & Welch, Dexter	10.00		
Dr. Roberts Stock Food Co., Waukesha, Wis		5.00	
H. Hanson, Greenwood, Wis			3.00
Ewe, one year old—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		
Dr. Roberts Stock Food Co., Waukesha, Wis		5.00	
Boynton & Welch, Dexter			3.00
Ewe lamb—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		
Dr. Roberts Stock Food Co., Waukesha, Wis		5.00	

FLOCK.

One ram, any age; one ewe, two years old or over; one ewe, one year old and under two; one ewe lamb, under one year old—

Dr. Roberts Stock Food Co., Waukesha, Wis	15.00		
Boynton & Welch, Dexter		10.00	

SWEEPSTAKES.

One ram, any age—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		
One ewe, any age—			
Dr. Roberts Stock Food Co., Waukesha, Wis	10.00		

Class 41—Angora Goats.

Buck, two years old or over—			
Fletcher Bros., Minneapolis	$10.00		
D. H. Syme, Glenwood, Wis		$5.00	
Fletcher Bros., Minneapolis			$3.00
Buck, one year old—			
D. H. Syme, Glenwood, Wis	10.00		
D. H. Syme, Glenwood, Wis		5.00	
Buck, kid—			
D. H. Syme, Glenwood, Wis	10.00		
D. H. Syme, Glenwood, Wis		5.00	
Fletcher Bros., Minneapolis			3.00
Doe, two years old or over—			
D. H. Syme, Glenwood, Wis	10.00		
Fletcher Bros., Minneapolis		5.00	
Fletcher Bros., Mineapolis			3.00
Doe, one year old—			
D. H. Syme, Glenwood, Wis	10.00		
Fletcher Bros., Minneapolis		5.00	
D. H. Syme, Glenwood, Wis			3.00
Doe kid—			
D. H. Syme, Glenwood, Wis	10.00		
Fletcher Bros., Minneapolis		5.00	
D. H. Syme, Glenwood, Wis			3.00

FLOCK.

One buck, any age; one doe, two years or over; one doe, one one year old and under two; one doe kid under one year old—

D. H. Syme, Glenwood, Wis	15.00		
Fletcher Bros., Minneapolis		10.00	

SWEEPSTAKES.

	Prem. 1st
One buck, any age—	
Fletcher Bros., Minneapolis, Minn	10.00
One doe, any age—	
D. H. Syme, Glenwood, Wis	10.00

DIVISION D—SWINE.

Premiums awarded $1,307.00

Superintendent, J. C. Mills, Preston.

Assistant Superintendent, D. A. Gaumnitz, St. Anthony Park.

Class 43—Poland China.

	1st Prem.	2d Prem.	3d Prem.
Boar, one year old or over—			
M. W. Reed, Whitewater, Wis	$15.00		
L. P. Martiny, North Freedom, Wis		$10.00	
L. P. Martiny, North Freedom, Wis			$5.00
Boar, six months old and under one year—			
M. W. Reed, Whitewater, Wis	10.00		
G. J. Trester, Rushford, Minn		5.00	
L. P. Martiny, North Freedom, Wis			3.00
Boar, under six months old, age considered—			
L. P. Martiny, North Freedom, Wis	10.00		
L. P. Martiny, North Freedom, Wis		5.00	
G. J. Trester, Rushford, Minn			3.00
Breeding sow, two years old or over—			
M. W. Reed, Whitewater, Wis	15.00		
L. P. Martiny, North Freedom, Wis		10.00	
L. P. Martiny, North Freedom, Wis			5.00
Breeding sow, one year old and under two—			
M. W. Reed, Whitewater, Wis	15.00		
M. W. Reed, Whitewater, Wis		10.00	
G. J. Trester, Rushford, Minn			5.00
Sow pig, six months old and under one year—			
L. P. Martiny, North Freedom, Wis	10.00		
Wm. Harvey, Wiscoy, Wis		5.00	
L. P. Martiny, North Freedom, Wis			3.00
Sow pig, under six months old, age considered—			
L. P. Martiny, North Freedom, Wis	10.00		
G. J. Trester, Rushford, Minn		5.00	
M. W. Reed, Whitewater, Wis			3.00
Herd, to consist of one boar and three sows, one year old or over—			
M. W. Reed, Whitewater, Wis	20.00		
L. P. Martiny, Whitewater, Wis		10.00	
Herd, to consist of one boar and three sows, under one year old—			
L. P. Martiny, North Freedom, Wis	20.00		
Wm. Harvey, Wiscoy, Wis		10.00	
G. J. Trester, Rushford, Minn			5.00

Class 44—Duroc Jersey.

Boar, one year old or over—			
Harmon Gruver, Brewster, Ia	$15.00		
Johnston Bros., Brooklyn, Ia		$10.00	
Harmon Gruver, Brewster, Ia			$5.00

	1st Prem.	2d Prem.	3d Prem.
Boar, six months old and under one year—			
M. W. Reed, Whitewater, Wis.	10.00		
T. E. Bly, Brewster, Ia.		5.00	
Johnston Bros., Brooklyn, Ia.			3.00
Boar, under six months old, age considered—			
Johnston Bros., Brooklyn, Ia.	10.00		
M. W. Reed, Whitewater, Wis.		5.00	
N. B. Cutter, Carthage, Ill.			3.00
Breeding sow, two years old or over—			
T. E. Bly, Brewster, Ia.	15.00		
Harmon Gruver, Brewster, Ia.		10.00	
Harmon Gruver, Brewster, Ia.			5.00
Breeding sow, one year old and under two—			
Johnston Bros., Brooklyn, Ia.	15.00		
Johnston Bros., Brooklyn, Ia.		10.00	
Johnston Bros., Brooklyn, Ia.			5.00
Sow pig, six months old and under one year—			
M. W. Reed, Whitewater, Wis.	10.00		
T. E. Bly, Brewster, Ia.		5.00	
Johnston Bros., Brooklyn, Ia.			3.00
Sow pig, under six months old, age considered—			
Johnston Bros., Brooklyn, Ia.	10.00		
M. W. Reed, Whitewater, Wis.		5.00	
M. W. Reed, Whitewater, Wis.			3.00
Herd, to consist of one boar and three sows, one year old or over—			
Johnston Bros., Brooklyn, Ia.	20.00		
N. B. Cutter, Carthage, Ill.		10.00	
Herd, to consist of one boar and three sows, under one year old—			
M. W. Reed, Whitewater, Wis.	20.00		
Johnston Bros., Brooklyn, Ia.		10.00	
M. W. Reed, Whitewater, Wis.			5.00

Class 45—Chester White.

	1st Prem.	2d Prem.	3d Prem.
Boar, one year old or over—			
Dorsey Bros., Perry, Ill.	$15.00		
L. C. Hodgson, Luverne.		$10.00	
Dorsey Bros., Perry, Ill.			$5.00
Boar, six months old and under one year—			
Dorsey Bros., Perry, Ill.	10.00	5.00	3.00
Boar, under six months old, age considered—			
L. C. Hodgson, Luverne.	10.00	5.00	
G. W. Canfield, Luverne.			3.00
Breeding sow, two years old or over—			
Dorsey Bros., Perry, Ill.	15.00		
L. C. Hodgson, Luverne.		10.00	
F. J. Lucksinger, Cottage Grove.			5.00
Breeding sow, one year old and under two—			
Dorsey Bros., Perry, Ill.	15.00	10.00	
L. C. Hodgson, Luverne.			5.00
Sow pig, six months old and under one year—			
Dorsey Bros, Perry, Ill.	10.00	5.00	3.00
Sow pig, under six months old, age considered—			
F. J. Lucksinger, Cottage Grove.	10.00	5.00	
Dorsey Bros., Perry, Ill.			3.00
Herd, to consist of one boar and three sows, one year old or over—			
Dorsey Bros., Perry, Ill.	20.00		
L. C. Hodgson, Luverne.		10.00	
F. J. Lucksinger, Cottage Grove.			5.00

	1st Prem.	2d Prem.	3d Prem.
Herd, to consist of one boar and three sows, under one year old—			
Dorsey Bros., Perry, Ill	20.00		
F. J. Lucksinger, Cottage Grove		10.00	
L. C. Hodgson, Luverne			5.00

Class 46—Improved Yorkshire.

	1st Prem.	2d Prem.	3d Prem.
Boar, one year old or over—			
T. H. Canfield, Lake Park	$15.00	$10.00	
G. H. Forgerson, Rosemount			$5.00
Boar, six months old and under one year—			
T. H. Canfield, Lake Park	10.00		
Boar, under six months old, age considered—			
T. H. Canfield, Lake Park	10.00	5.00	
G. H. Forgerson, Rosemount			3.00
Breeding sow, two years old or over—			
T. H. Canfield, Lake Park	15.00	10.00	5.00
Breeding sow, one year old and under two—			
T. H. Canfield, Lake Park	15.00	10.00	5.00
Sow pig, six months old and under one year—			
T. H. Canfield, Lake Park	10.00		
Sow pig, under six months old, age considered—			
T. H. Canfield, Lake Park	10.00		
T. H. Canfield, Lake Park		5.00	
G. H. Forgerson, Rosemount			3.00
Herd, to consist of one boar and three sows, one year old or over—			
T. H. Canfield, Lake Park	20.00	10.00	
Herd, to consist of one boar and three sows, under one year old—			
T. H. Canfield, Lake Park	20.00		
G. H. Forgerson, Rosemount		10.00	

Class 47—Essex.

	1st. Prem.	2d Prem.
Boar, one year old or over—		
A. C. Green & Son, Winchester, Ind	$15.00	$10.00
Boar, under one year, age considered—		
A. C. Green & Son, Winchester, Ind	10.00	5.00
Breeding sow, one year old and under two—		
A. C. Green & Son, Winchester, Ind	15.00	10.00
Breeding sow, one year old and under two—		
A. C. Green & Son, Winchester, Ind	15.00	
C. H. Murphy, Caledonia		10.00
Sow pig, under one year old, age considered—		
A. C. Green & Son, Winchester, Ind	10.00	5.00
Herd, to consist of one boar and three sows, one year old or over—		
A. C. Green & Son, Winchester, Ind	20.00	
C. H. Murphy, Caledonia		10.00
Herd, to consist of one boar and three sows, under one year old—		
A. C. Green & Son, Winchester, Ind	20.00	
C. H. Murphy, Caledonia		10.00

Class 48—Suffolk.

Boar, one year old or over—		
A. C. Green & Sons, Winchester, Ind	$15.00	
C. H. Williams, Pittsford, Mich		$10.00
Boar, under one year, age considered—		
C. H. Williams, Pittsford, Mich	15.00	10.00

	1st Prem.	2d Prem.
Breeding sow, two years old or over—		
C. H. Williams, Pittsford, Mich	15.00	
Bert Harvey, Trenton, Ind		10.00
Breeding sow, one year old and under two—		
C. H. Williams, Pittsford, Mich	15.00	10.00
Sow pig, under one year old, age considered—		
C. H. Williams, Pittsford, Mich	10.00	
A. C. Green & Sons, Winchester, Ind		5.00
Herd, to consist of one boar and three sows, one year old or over—		
C. H. Williams, Pittsford, Mich	20.00	
Bert Harvey, Trenton, Ind		10.00
Herd, to consist of one boar and three sows, under one year old—		
A. C. Green & Son, Winchester, Ind	20.00	

Class 50—Sweepstakes.

	1st Prem.	2d Prem.	3d Prem.
Sow, any breed, with largest number and best litter of pigs—			
L. P. Martiny, North Freedom, Wis	$20.00		
M. N. Reed, Whitewater, Wis		$10.00	
N. B. Cutler, Carthage, Ill			$5.00

Class 51—Sweepstakes.

Best exhibit of swine owned and bred by a Minnesota exhibitor—			
L. C. Hodgson, Luverne	$25.00		
F. Lucksinger, Cottage Grove		$15.00	
G. J. Trester, Rushford			$10.00

REPORT OF SUPERINTENDENT OF DIVISION E.

To the Honorable Members of the Board of Managers of the Minnesota State Agricultural Society,

GENTLEMEN: In submitting my report of Division E, poultry department, of 1902, I take great pleasure in assuring you it was never equaled in quality and but once in quantity, the former being that for which we are seeking. There were on exhibition, in round numbers, 2,000 birds, and all classes were well represented. I also take pleasure in telling you that the local, or state, exhibit was far in advance both in numbers and quality to any showing in previous years. I feel that this is very flattering, as home production is what we are aiming for. The interest shown was never so great in my department as in 1902, our poultry house being crowded from early morn until the closing hour, and the department never ran as smoothly —not a jar; and Judge Holden gave the very best of satisfaction. It is plain to be seen that the people are becoming more and more interested in the poultry industry and for the simple reason that there is profit in it as well as pleasure. The poultry house is not large enough to accommodate the birds that are on exhibition and have them in proper shape for an attractive exhibit. The annex is much too small, and if we expect exhibitors to come to us we must give them space for their exhibits and not in tents outside the poultry house. I would call your attention to the fact that the society must soon furnish show coops for all birds shown, as is the case at nearly all state fairs in our country. This has been brought about by poultry shows furnishing coops at winter shows. This is very pleasing to exhibitors, as they can ship at much less expense in crates, exhibition coops being much heavier. I trust the suggestion for show coops and added space in annex can be taken up for 1903, the annex in particular.

Respectfully submitted,
LESLIE PARLIN,
Superintendent of Division E.

DIVISION E—POULTRY.

Superintendent, Leslie Parlin, St. Paul.
Judge, G. D. Holden.

Premiums awarded..$675.00

Class 52—Domestic Fowls.

ASIATIC.

	1st Prem.	2d Prem.	3d Prem.
Brahma, light—			
A. S. Napier, St. Paul	$2.00		
A. S. Napier, St. Paul		$1.00	
W. A. Hoyt, Whitewater, Wis			$0.50
Brahma, light, chicks—			
Wm. Eberley, Anoka	2.00		
Brahma, dark—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Cochin, Buff—			
F. C. Kimball, St. Paul	2.00		
W. M. Bean, Anoka		1.00	
W. M. Bean, Anoka			.50
Cochin, buff, chicks—			
W. M. Bean, Anoka	2.00		
W. M. Bean, Anoka		1.00	
Geo. F. Reid, South Stillwater			.50
Cochin, partridge—			
J. P. Peterson, St. Paul	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
J. P. Peterson, St. Paul			.50
Cochin, partridge, chicks—			
J. P. Peterson, St. Paul	2.00		
J. P. Peterson, St. Paul		1.00	
J. P. Peterson, St. Paul			.50
Cochin, black—			
W. A. Hoyt, Whitewater, Wis	2.00		
Langshan, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Wm. Cowden, Anoka			.50
Langshan, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Wm. Cowden, Anoka		1.00	
W. A. Hoyt, Whitewater			.50
Langshan, white—			
Wm. Eberly, Anoka	2.00		
Wm. Eberly, Anoka		1.00	
Langshan, white, chicks—			
Wm. Eberly, Anoka	2.00		
Wm. Eberly, Anoka		1.00	

AMERICAN.

	1st Prem.	2d Prem.	3d Prem.
Plymouth Rocks, barred—			
F. T. Brunk, Ellsworth, Wis	2.00		
Robt. Waldron, Minneapolis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Plymouth Rocks, barred, chicks—			
N. S. Beardsley, St. Paul	2.00		
F. T. Brunk, Ellsworth, Wis		1.00	
N. S. Beardley, St. Paul			.50
Plymouth Rocks, buff—			
E. E. McCrea, St. Paul	2.00		
F. G. Mogler, St. Paul		1.00	
Plymouth Rock, buff, chicks—			
E. E. McCrea, St. Paul	2.00		
F. W. Koetz, Winona		1.00	
F. W. Koetz, Winona			.50
Plymouth Rocks, white—			
F. G. Mogler, St. Paul	2.00		
A. S. Sparks, Anoka		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Plymouth Rocks, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Donald Doty, Merriam Park			.50
Wyandottes, silver laced—			
Goette & Son, St. Paul	2.00		
Arnold Jungman, Gladstone		1.00	
W. M. Swaggert, Wayzata			.50
Wyandottes, silver laced, chicks—			
Goette & Son, St. Paul	2.00		
Goette & Son, St. Paul		1.00	
Ed. Lynch, St. Paul			.50
Wyandottes, golden laced—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Wyandottes, golden laced, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Wyandottes, white—			
Ed. Lynch, St. Paul	2.00		
Arnold Jungman, Gladstone		1.00	
Arnold Jungman, Gladstone			.50
Wyandottes, white, chicks—			
Ed. Lynch, St. Paul	2.00		
Arnold Jungman, Gladstone		1.00	
Ed. Lynch, St. Paul			.50
Wyandottes, buff—			
Henry Hess, Winona	2.00		
E. S. Person, Zumbrota		1.00	
Arnold Jungman, Gladstone			.50
Wyandottes, buff, chicks—			
Henry Hess, Winona	2.00		
Henry Hess, Winona		1.00	
Henry Hess, Winona			.50
Wyandottes, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Wyandottes, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Wyandottes, partridge—			
S. M. Stellwagen, Minneapolis	2.00		
Arnold Jungman, Gladstone		1.00	

	1st Prem.	2d Prem.	3d Prem.
Wyandottes, partridge, chicks—			
Arnold Jungman, Gladstone	2.00		
Javas, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Javas, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Javas, white, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
Dominiques, American, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Jersey, blues—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

MEDITERRANEAN.

	1st Prem.	2d Prem.	3d Prem.
Leghorn, single comb, brown—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
C. A. Dutton, Trempealeau, Wis		1.00	
M. Sandin, Merriam Park			.50
Leghorn, single comb, brown, chicks—			
C. A. Dutton, Trempealeau, Wis	2.00		
M. Sandin, Merriam Park		1.00	
Mrs. R. Waldron, Minneapolis			.50
Leghorn, rose comb, brown—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
F. T. Brunk, Ellsworth, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Leghorn, rose comb, brown, chicks—			
F. T. Brunk, Ellsworth, Wis	2.00		
W. Cowden, Anoka		1.00	
F. T. Brunk, Ellsworth, Wis			.50
Leghorn, single comb, white—			
Henry Schroeder, St. Paul	2.00		
Henry Schroeder, St. Paul		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Leghorn, single comb, white, chicks—			
Henry Schroeder, St. Paul	2.00		
Henry Schroeder, St. Paul		1.00	
Henry Schroeder, St. Paul			.50
Leghorn, rose comb, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Leghorn, rose comb, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Leghorn, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Leghorn, buff—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
F. T. Brunk, Ellsworth, Wis		1.00	
W. M. Bean, Anoka			.50
Leghorn, buff, chicks—			
Arnold Jungman, Gladstone	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Arnold Jungman, Gladstone			.50

	1st Prem.	2d Prem.	3d Prem.
Minorca, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
R. A. Koepke, Minneapolis		1.00	
Minorca, black, chicks—			
R. A. Koepke, Minneapolis	2.00		
R. A. Koepke, Minneapolis		1.00	
C. A. Leiek, Minneapolis			.50
Minorca, white—			
W. A. Daggett, Anoka	2.00		
Minorca, white, chicks—			
W. A. Daggett, Anoka	2.00		
W. A. Daggett, Anoka		1.00	
W. A. Daggett, Anoka			.50
Andalusian, blue, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
Spanish, black—			
W. H. Hoyt, Whitewater, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Spanish, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

HAMBURGS.

Hamburgs, golden spangled—			
Margaret Hope, Hammond	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Hamburgs, golden spangled, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Hamburgs, silver spangled, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Hamburgs, golden penciled—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Hamburgs, golden penciled, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Hamburgs, silver penciled, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Hamburgs, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Hamburgs, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Red Caps—			
E G. Roberts, Ft. Atkinson, Wis	2.00		

POLISH.

Black Polish, white crested—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Black Polish, white crested, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50

	1st Prem.	2d Prem.	3d Prem.
Polish, golden—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
H A. Hoyt, Whitewater, Wis		1.00	
H. A. Hoyt, Whitewater, Wis			.50
Polish, golden, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
H. A. Hoyt, Whitewater, Wis		1.00	
Polish, silver—			
W. A. Hoyt, Whitewater, Wis	2.00		
H. A. Hoyt, Whitewater, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Polish, silver, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Polish, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
J. P. Peterson, St. Paul		1.00	
J. P. Peterson, St. Paul			.50
Polish, white, chicks—			
J. P. Peterson, St. Paul	2.00		
Polish, golden, bearded—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
H A. Hoyt, Whitewater, Wis			.50
Polish, golden, bearded, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson. Wis		1.00	
Polish, silver, bearded—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Polish, silver, bearded, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Polish, white, bearded—			
E G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Polish, white, bearded. chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

ENGLISH.

	1st Prem.	2d Prem.	3d Prem.
Dorking, white—			
W. H. Hoyt, Whitewater, Wis	2.00		
Dorking. white, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
Dorking, silver gray—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
F. W. Prouse, Minneapolis		1 00	
F. W. Prouse, Minneapolis			.50
Dorking, silver gray, chicks—			
G. H. Thompson, Duluth	2.00		
G H. Thompson, Duluth		1.00	
F. W. Prouse, Minneapolis			.50

FRENCH.

	1st Prem.	2d Prem.	3d Prem.
Houdan, mottled—			
John Kirby, St. Paul	2.00		
John Kirby, St. Paul		1.00	
John Kirby, St. Paul			.50
Houdan, mottled, chicks—			
John Kirby, St. Paul	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
John Kirby, St. Paul			.50

	1st Prem.	2d Prem.	3d Prem
Fleche, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Fleche, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. H. Hoyt, Whitewater, Wis		1.00	

Class 53—Game Fowls.

	1st Prem.	2d Prem.	3d Prem
Red Games, black breasted—			
E. G. Roberts, Ft. Atkinson, Wis	$2.00		
E. G. Roberts, Ft. Atkinson, Wis		$1.00	
W. H. Hoyt, Whitewater, Wis			$0.50
Red Games, black breasted, chicks—			
W. H. Hoyt, Whitewater, Wis	2.00		
Red Games, brown—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Red Games, brown, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Duckwing, golden—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Duckwing, golden, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Duckwing, silver—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. H. Hoyt, Whitewater, Wis			.50
Duckwing, silver, chicks—			
W. H. Hoyt, Whitewater, Wis	2.00		
Pyle, red—			
W. H. Hoyt, Whitewater, Wis	1.00		
Pyle, red, chicks—			
W. H. Hoyt, Whitewater, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Game, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Game, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. H. Hoyt, Whitewater, Wis		1.00	
Games, Indian—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. H. Hoyt, Whitewater, Wis		1.00	
C. Y. Gibbs, Wayzata			.50
Games, Indian, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. H. Hoyt, Whitewater, Wis		1.00	
C. Y. Gibbs, Wayzata			.50

GAME BANTAMS.

	1st Prem.	2d Prem.	3d Prem
Red Game, black breasted—			
J. E. Brown, St. Anthony Park	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Ed. Lynch, St. Paul			.50
Red Game, black breasted, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. H. Hoyt, Whitewater, Wis			.50
Red Game, brown—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

	1st Prem.	2d Prem.	3d Prem.
Red Game, brown, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. H. Hoyt, Whitewater, Wis		1.00	
W. H. Hoyt, Whitewater, Wis			.50
Duckwing, golden—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Duckwing, golden, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Duckwing, silver—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Duckwing, silver, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Pyle, red—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Pyle, red, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Game bantam, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Game bantam, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Game bantams, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Game bantam, birchen—			
J. E. Brown, St. Anthony Park	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Game bantam, birchen, chicks—			
J. E. Brown, St. Anthony Park	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	

BANTAMS OTHER THAN GAME.

Seabright, golden—			
W. A. Hoyt, Whitewater, Wis	2.00		
W. M. Bean, Anoka		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Seabright, golden, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
W. M. Bean, Anoka			.50
Brahma, light—			
A. S. Napier, St. Paul	2.00		
A. S. Napier, St. Paul		1.00	
A. S. Napier, St. Paul			.50
Brahma, light, chicks—			
A. S. Napier, St. Paul	2.00		
A. S. Napier, St. Paul		1.00	
Seabright, silver—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Seabright, silver, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Rose combed, white—			
Goette & Son, St. Paul	2.00		

	1st Prem.	2d Prem.	3d Prem.
Rose combed, black—			
Ed. Lynch, Minneapolis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Rose combed, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Ed. Lynch, Minneapolis			.50
Booted, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Cochin, buff—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. M. Bean, Anoka			.50
Cochin, buff, chicks—			
W. A. Hoyt, Whitewater, Wis	2.00		
W. M. Bean, Anoka		1.00	
W. M. Bean, Anoka			.50
Cochin, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Ed. Lynch, St. Paul		1.00	
Ed. Lynch, St. Paul			.50
Cochin, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Cochin, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Ed. Lynch, St. Paul			.50
Cochin, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Japanese, black-tailed—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50
Japanese, black-tailed, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Japanese, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
White Polish, white crested—			
J. P. Peterson, St. Paul	2.00		
White Polish, white crested, chicks—			
J. P. Peterson, St. Paul	2.00		
J. P. Peterson, St. Paul		1.00	

MISCELLANEOUS.

	1st Prem.	2d Prem.	3d Prem.
Russian, black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Sumatra, black—			
W. A. Hoyt, Whitewater, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Sumatra, black, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

	1st Prem.	2d Prem.	3d Prem.
Silky, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Frizzles, any color—			
W. A. Hoyt, Whitewater, Wis	2.00		
Frizzles, any color, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Henry Schroeder, St. Paul			.50
Rumpless, any color—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Rumpless, any color, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		

Class 54—Turkeys, Ducks, Geese, Etc.

TURKEYS.

	1st Prem.	2d Prem.	3d Prem.
Narragansett—			
E. G. Roberts, Ft. Atkinson, Wis	$2.00		
Narragansett, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Buff—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Buff, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Slate—			
W. A. Hoyt, Whitewater, Wis	2.00		
White—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
White, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Black—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		$1.00	

DUCKS.

	1st Prem.	2d Prem.	3d Prem.
Pekin, white—			
Margaret Hope, Hammond, Wis	2.00		
Margaret Hope, Hammond, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			$0.50
Pekin, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Aylesbury, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Rouen, colored—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Rouen, colored, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Cayuka, black—			
J. J. Lorentzon, Clarks Grove	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Muscovey, colored—			
Ed. Lynch, St. Paul	2.00		
Ed. Lynch, St. Paul		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Muscovey, colored, chicks—			
Ed. Lynch, St. Paul	2.00		
Ed. Lynch, St. Paul		1.00	
Ed. Lynch, St. Paul			.50
Muscovey, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
W. A. Hoyt, Whitewater, Wis			.50

	1st Prem.	2d Prem.	3d Prem.
Muscovey, white, chicks—			
Ed. Lynch, St. Paul	2.00		
Ed. Lynch, St. Paul		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Call, gray—			
W. A. Hoyt, Whitewater, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
E. G. Roberts, Ft. Atkinson, Wis			.50
Call, gray, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
E. G. Roberts, Ft. Atkinson, Wis		1.00	
Call, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Call, white, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
East Indian, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
White crested—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
White crested, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Indian Runner—			
Margaret Hope, Hammond, Wis	2.00		
Margaret Hope, Hammond, Wis		1.00	
Indian Runner, chicks—			
Margaret Hope, Hammond, Wis	2.00		
Margaret Hope, Hammond, Wis		1.00	

GEESE.

Toulouse, gray—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Toulouse, gray, chicks—			
L. Gulden, Osakis	2.00		
L. Gulden, Osakis		1.00	
Embden, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
African, gray—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Chinese, brown—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Chinese, white—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
Wild, gray—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	
Wild, gray, chicks—			
E. G. Roberts, Ft. Atkinson, Wis	2.00		
W. A. Hoyt, Whitewater, Wis		1.00	

Class 55—Oranamental and Pet Stock.

White Guineas—			
E. G. Roberts, Ft. Atkinson, Wis	$1.00		
Pearl Guineas—			
J. A. Parsons, Minneapolis	1.00		
Pea Fowls—			
W. H. Smith, Renville	1.00		

	1st Prem.	2d Prem.	3d Prem.
Largest display of pigeons, not less than six varieties—			
Kamerlocher & Co., Minneapolis	8.00		
Taklo & Co., Minneapolis		$5.00	
W. A. Hoyt, Whitewater, Wis			$3.00

Class 56.

	1st Prem.	2d Prem.	3d Prem.
Best breeding pen (for fowls only), one male and four females—			
No. 1. A. S. Napier, St. Paul	$3.00		
No. 1. W. A. Hoyt, Whitewater, Wis		$2.00	
No. 3. W. M. Bean, Anoka	3.00		
No. 3. W. M. Bean, Anoka		2.00	
No. 4. J. P. Peterson, St. Paul	3.00		
No. 4. E. G. Roberts, Ft. Atkinson, Wis		2.00	
No. 7. W. Cowden, Anoka	3.00		
No. 9. F. T. Brunk, Ellsworth	3.00		
No. 9. N. S. Beardsley, St. Paul		2.00	
No. 10. E. E. McCrea, St. Paul	3.00		
No. 10. W. M. Bean, Anoka		2.00	
No. 13. Goett & Son, St. Paul	3.00		
No. 13. Goett & Son, St. Paul		2.00	
No. 15. Arnold Jungman, Gladstone	3.00		
No. 15. Arnold Jungman, Gladstone		2.00	
No. 16. Ed. Lynch, St. Paul	3.00		
No. 16. Arnold Jungman, Gladstone		2.00	
No. 17. F. W. Prouse, Minneapolis	3.00		
No. 24. E. G. Roberts, Ft. Atkinson, Wis	3.00		
No. 24. M. Sandin, Merriam Park		2.00	
No. 25. W. A. Hoyt, Whitewater, Wis	3.00		
No. 25. W. Cowden, Anoka		2.00	
No. 26. Henry Schroeder, St. Paul	3.00		
No. 27. E. G. Roberts, Ft. Atkinson, Wis		2.00	
No. 28. F. W. Prouse, Minneapolis	3.00		
No. 30. F. T. Brunk, Ellsworth	3.00		
No. 30. W. M. Bean, Anoka		2.00	
No. 32. C. A. Leck, Minneapolis	3.00		
No. 32. W. A. Hoyt, Whitewater, Wis		2.00	
No. 33. W. A. Daggett, Anoka	3.00		
No. 34. W. A. Hoyt, Whitewater, Wis	3.00		
No. 37. Margaret Hope, Hammond	3.00		
No. 37. E. G. Roberts, Ft. Atkinson, Wis		2.00	
No. 53. F. W. Prouse, Minneapolis	3.00		
No. 55. John Kirby, St. Paul	3.00		
No. 55. John Kirby, St. Paul		2.00	
No. 66. W. A. Hoyt, Whitewater, Wis	3.00		
No. 66. W. A. Hoyt, Whitewater, Wis		2.00	
Best incubator in operation—			
F. G. Mogler, St. Paul	10.00		
Des Moines Incubator Co., Des Moines, Ia		5.00	
Best brooder in operation—			
Hawkeye Incubator Co., Newton, Ia	5.00		
F. G. Mogler, St. Paul		3.00	
Pheasants, not less than six varieties—			
W. W. Bradley, Forman, S. D	25.00		

DIVISION F—BUTTER AND CHEESE.

Premiums awarded.. $754.23

Superintendent, B. D. White, St. Paul.

Class 57—Butter.

SWEEPSTAKES.

CREAMERY.

	Score.	Prem.
H. J. Rosenan, Maryland	97½	$14.75
M. Sondergaard, Hutchinson	97	13.62
M. P. Mortenson, Stockholm	96½	12.48
W. I. Noyes, Moeland	96	11.35
J. W. Reynolds, Nicollet	95½	10.21
P. E. Holt, Rock Creek	94½	7.94
H. T. Sondergaard, Litchfield	94½	7.94
E. L. Paulson, Irving	94½	7.94
Peter Miller, Georgeville	94½	7.94
John F. Keiltie, Watkins	94½	7.94
Simon Braun, Kellogg	94½	7.94
N. J. Hendrickson, Cokato	94	6.81
Peter Jensen, Hayward	94	6.81
T. J. Melcher, Norwood	94	6.81
O. Garlis, Lykens, Wis	94	6.81
A. P. Almquist, Rushpoint	94	6.81
W. V. Almquist, Stark	94	6.81
H. C. Peterson, Flom	94	6.81
J. K. Bennett, Clinton Falis	94	6.81
H. J. Credecott, Easton	94	6.81
Adolph Norman, Foreman, N. D	94	6.81
N. N. Larson, Vermillion, S. D	93½	5.67
G. H. Wentworth, Owatonna	93½	5.67
F. O. Thompson, Marshall	93½	5.67
Geo. Chandler, Eddsville	93½	5.67
Adin Nelson, East Union	93½	5.67
O. R. Duncan, Waseca	93½	5.67
R. Flint, New Salem, N. D	93½	5.67
John Groser, Westbrook	93½	5.67
Otto Bach, Rushford	93½	5.67
W. H. Kiltie, Eldrid	93½	5.67
Henry Sandholt, Grove City	93½	5.67
O. Westvig, Menannah	93½	5.67
A. Sorensen, Webster	93½	5.67
J. S. Snyder, Blue Earth	93½	5.67
E. O. Quenvold, Schaffer	93½	5.67
W. C. Peterson, Pilot Grove	93½	5.67
J. P. Jensen, Bricelyn	93½	5.67
C. A. Squire, Elk Mound, Wis	93½	5.67
L. J. Grelong, New Paynesville, Minn	93½	5.67
A. D. Fisher, New Richmond	93¼	5.11
Thor Moe, Winthrop	93¼	5.11
A. Olsen, Keystone	93	4.54
O. A. Storvick, Emmons	93	4.54
G. C. Peterson, Knapp	93	4.54
J. D. Plontye, Morristown	93	4.54
Alfred Schultze, Banks	93	4.54
Christian Top, Northfield	93	4.54
M. G. Kaepsell, Ridgeway	93	4.54

	Score.	Prem.
H. W. Crooks, Buffalo	93	4.54
N. P. Jensen, Forest City	93	4.54
James Sorensen, Lyndale	93	4.54
A. W. Carlson, Almelund	93	4.54
F. G. Stiller, Rutland, N. D	93	4.54
Willie Johnson, Strout	93	4.54
J. C. Joclyn, No. Prairie	93	4.54
I. O. Dyverick, Lake Crystal	92¾	3.97
H. A. Goetsch, Winthrop	92¾	3.97
C. A. Sorensen, Fairfield	92½	3.40
Andrew Larson, Schaffer	92½	3.40
B. A. Finch, Montevideo	92⅓	3.40
H. W. Larson, Hartland	92½	3.40
J. A. Peterson, Chisago City	92½	3.40
M. Jensen, Stockton	92⅓	3.40
E. J. Holmers, No. Branch	92⅓	3.40
E. A. Densell, Montrose	92½	3.40
E. K. Slater, Willburt	92½	3.40
C. J. Meyer, Casey	92½	3.40
W. F. Stahom, Loretto	92½	3.40
J. G. Wilson, Withrow	92½	3.40
G. A. Holmes, Dovray	92½	3.40
N. R. Lund, Plainview	92½	3.40
Nels Simonson, Windom	92½	3.40
William Hope, Anoka	92½	3.40
C. A. Rasmuss, Oaklund	92½	3.40
A. Erickson, Volga, Wis	92½	3.40
E. A. Allen, Winnebago City	92½	3.40
John Sallie, New Sweden	92¼	2.84
N. P. Iverson, Loretto	92¼	2.84
W. A. Santo, Shyberg	92¼	2.84
O. L. Morken, Smithmills	92	2.27
John Ostlund, New London	92	2.27
G. A. Lindahl, Greenleaf	92	2.27
N. N. Engebretsen, Mansfield	92	2.27
A. Johnson, Olivia	92	2.27
Alfred Johnson, St. Paul	92	2.27
F. R. Barnes, Heatwole	92	2.27
P. M. Paulson, Evan	92	2.27
Elov Erickson, Mankato	92	2.27
C. H. Jensen, Bernadotte	92	2.27
C. B. Thompson, Alsen, S. D	92	2.27
Chas. Levrick, Lakefield	92	2.27
C. H. Vick, Elmdale	92	2.27
J. L. Walstrom, Grande	92	2.27
O. W. Bluhmquist, Spencer Brook	92	2.27
William Larson, Stewart	92	2.27
W. E. Groetsch, New Rome	92	2.27
D. P. White, Ortonville	92	2.27
L. C. Jensen, Elmore	92	2.27
H. Dorn, Fairfax	92	2.27
T. Aasen, Milan	92	2.27
A. H. Jorgensen, Waverley	93½	5.67
Y. Friis, Cordova	92	2.27

DAIRY.

J. G. Wilson, Withrow	92½	12.50
Mrs. J. D. Hopkins, Hugo	93	9.95
C. A. Severson, Norway Lake	91½	8.29
Mrs. Hans Larson, Evan	89¼	5.80

	Score.	Prem.
Mrs. W. A. Kendrick, St. Cloud	86½	2.76
M. L. Holmes, Owatonna	88½	4.97
Alberta Winn, Redwood Falls	87	3.31
H. H. Heines, Lydia	86½	2.76
A. F. Jones, Morristown	86	2.21
Mrs. S. H. Murphy, Caledonia	85	1.10

PRINTS.

Judson Hopkins, Hugo	92	4.45
M. L. Holmes, Owatonna	89½	3.05
Mrs. W. A. Kendrick, St. Cloud	88½	2.50

Class 58—Cheese.

FACTORY CHEESE.

W. L. Jones, New Richmond	96½	$11.04
S. E. Hubbard, Phelps	96	10.60
F. A. Viergutz, Chippewa Falls, Wis	95½	10.15
A. W. Parkin, Stanton	93½	8.39
Gentilly Dairy Association, Gentilly	92½	7.50
Wm. J. Kasper, Hancock	92	7.06
J. Lenhert, Mantorville	92	7.06
Cherry Grove Cheese Co., Cherry Grove	91½	6.62
F. W. Burt, Cannon Falls	91½	6.62
Alfred Jorgensen, Carlson	91½	6.62
O. P. Butler, Litchfield	91	6.18
Samuel Uglow, Litchfield	91	6.18
H. Clement, Terrebonnie	91	6.18
Aug. Enberg, Renville	91	6.18
H. Yeomens, Cheney	90	5.30
A. E. Helmer, Evansmills, N. Y	95	5.30
Quincy Cheese Co., Quincy	89½	4.86
Julius E. Olsen, Vida	89½	4.86
Willbur Parkins, West Concord	89	4.41
McKay Bros. & Trasler, Le Sueur	89	4.41
John Klossner, Sogn	88¾	4.19
J. F. Miller, Garden City	88	3.53
Maple Bay Dairy Association, Maple Bay	88	3.53
O. H. Howe, Renville	87½	2.21

SWISS CHEESE—LOT 9.

	1st Prem.	2d Prem.	3d Prem.
Stucky & Peyer, West Concord	$15.00		
K. Stucky, West Concord		$10.00	
G. Andrust, Berne			$5.00

BRICK CHEESE—LOT 10.

G. Andrist, Berne	15.00		
Stucky & Pier, West Concord		10.00	
John Eberle, Alma, Wis			5.00

SAGE CHEESE—LOT 14.

A. E. Helma		5.00	

YOUNG AMERICA—LOT 15.

J. Lenhart, Mantorville	10.00		
W. L. Jones, Newport		5.00	

DISPLAY OF CHEESE—LOT 16.

G. Andrist, Berne, Minn	25.00		

HORTICULTURE AT THE MINNESOTA STATE FAIR, 1902.

J. M. Underwood, Lake City, Superintendent.

A. W. Latham, Minneapolis, Assistant Superintendent.

The horticultural exhibits were made in the same building as last year, with the agricultural exhibits, and the interest and enthusiasm with which exhibitors entered into making a fine display convinces us that the management would do well to provide a separate and commodious building for horticulture, built especially with a view to exhibiting fruit and flowers to the best advantage and large enough to accommodate all the horticulture of the Northwest. The increasing interests in the agricultural exhibits are demanding more space and they need all of the room of the building without sharing it with horticulture. The display of fruit was larger in quantity than that of last year, and also surpassed it in size of fruit and general appearance.

The total number of plates of fruit shown in the hall was 3,761, divided as follows: Apples, 300; plums, 295; grapes, 454; compass cherries, 3; peaches, 1; pears, 6. There were four exhibitors in the sweepstakes apple class, aggregating in all 250 plates, ranging from 41 to 75, the latter being the maximum number allowed. In the class of the professional collections of apples there were five exhibits, aggregating 290 plates, the highest number shown by any one competitor being 91. In amateur apple collections there were seven exhibitors, aggregating 270 plates, ranging from 83 to 13. The grape exhibit this year was comparatively light on account of the lateness of the season, exhibitors disliking to show green fruit, and also because of the devastation by hail, which was quite general throughout the grape-growing region of Lake Minnetonka. The plum exhibit was also light, there being very few in the state. The exhibit was, however, much in excess of what was anticipated.

The principal professional apple exhibitor was F. I. Harris, son of the late J. S. Harris, and owner of his fine experimental orchards. In the amateur class William Oxford led with 83 varieties, many of them very fine specimens. The list of exhibitors was little changed from a year ago, though there were a few who stayed away on account of the unsatisfactory condition of their fruit. The William Somerville orchard at Viola has changed hands during the year, the exhibit being made this year by the present owner, J. W. Lufkin. A fine display of some 40 varieties of grapes was sent to the fair by Prof. S. B. Green, from our state experimental station, including the sorts approaching ripeness at that time. There were some very handsome varieties in the collection, and it compared well with the competitive displays of specially selected specimens.

The season was especially favorable for the Mycological Club, and their show of mushrooms was an object of great interest to the crowds who stood around their tables. Fifty dollars was divided among the members of the club who participated in the display.

The show of plants and flowers by the florists was equal to any exhibit they have ever made. This occupied the benches around the room, making the horticultural exhibit as a whole a bower of beauty.

There were three nursery exhibits in the hall, the Jewell Nursery Co. occupying the same space as last year, with a striking design in which they used the same foundation as they did a year ago, surmounted by a tower veneered with apples inlaid with high-bush cranberries. It was a beautiful conception and attracted attention from every passer by. The other commercial exhibits were from the Minnetonka Nursery Co. and C. P. Nichols, of Northfield, occupying each a corner of the hall.

We were fortunate in having with us during most of the week three professors of horticulture: From our own state S. B. Green, from North Dakota Prof. C. B. Waldron, and from South Dakota Prof. N. E. Hansen. Professors Hansen and Green acted as judges of apples, assisted by others who were present. The list of awards following tells the story of the display in full.

On Thursday afternoon an assortment of garden vegetables was put on exhibition, sent from Skagway, Alaska, by express, just a week before to a day. They came largely from the garden of A. H. Brackett, an old member of the Minnesota State Horticultural Society, whose interest in the state of his birth seems not to have abated as a result of some years' residence in Alaska. They attracted much attention, and some suspected they were grown nearer home, but they came from Alaska, as stated on the card pinned above it, just the same. Through the courtesy of the Great Northern Express Co. the exhibit was brought through in the shortest possible time and without expense in transit.

DIVISION G—FRUITS AND FLOWERS.

Premiums awarded.. $1,233.45

Superintendent—J. M. Underwood, Lake City.

Assistant Superintendent—A. W. Latham, Kasota Block, Minneapolis.

Judge—Samuel B. Green.

Class 59—Apples.

(Open to all.)

Sweepstakes collection. Open to all competitors and subject to all the foregoing rules, with the following modifications: First, the fruit need not have been grown by the exhibitor. Second, the collection must not exceed seventy-five varieties, and may include any variety, seedling or otherwise, grown in Minnesota. Third, each plate shown must be plainly labeled with the name of its grower. Printed cards for this purpose will be furnished on application to the superintendent.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
F. I. Harris, La Crescent..........................	$14.65			
A. B. Coleman, Long Lake..........................		$13.00		
W. L. Parker, Farmington..........................			$12.35	
O. M. Lord, Minnesota City..........................				$10.00

Peck of wealthy apples ($10 to be divided pro rata).

A. A. Bost, Excelsior, $1.10; Thos. Redpath, Wayzata, 95c; A. D. Leach, Excelsior, 90c; H. H. Heins, Lydia, 90c; F. I. Harris, La Crescent, 70c; F. J. Butterfield, Long Lake, 70c; J. F. Wilcox, Minneapolis, 65c; Mrs. R. Krause, Rose Town, 65c; Frank Yahnke, Winona, 60c; O. M. Lord, Minnesota City, 60c; C. R. Cummins, Washburn, Minn., 45c.

Collection of ten varieties of apples, to be judged with special reference to the size, beauty and perfection of the fruit (crabs and hybrids excepted), $25 to be divided pro rata among all the exhibitors in this lot.

F. I. Harris, La Crescent, $2.40; W. S. Widmoyer, Dresbach, $2.35; Ditus Day, Farmington, $2.25; Dewain Cook, Jeffers, $2; H. H. Heins, Lydia, $2; Thos. Tolbert, Wayzata, $2; A. B. Coleman, Long Lake, $1.90; A. A. Bost, Excelsior, $1.90; O. M. Lord, Minnesota City, $1.60; C. P. Nichols, Northfield, $1.60; Mrs. S. R. Spates, Wayzata, $1.35; F. J. Butterfield, Long Lake, $1.35; A. B. Lyman, Excelsior, $1.20; C. R. Cummins, Washburn, $1.10.

Class 60—Apples.

(For Professionals.)

Collection (hybrids and crabs excepted), $75 to be divided pro rata.

F. I. Harris, $20; J. A. Howard, Hammond, $16; J. W. Lufkin, Viola, $15; W. L. Parker, Farmington, $15; Frank Yahnke, Winona, $9.

Collection of hybrids and crabs, not to exceed ten varieties, $15 to be distributed pro rata.

F. I. Harris, La Crescent, $3.35; W. L. Parker, Farmington, $3.35; J. A. Howard, Hammond, $2.95; O. M. Lord, Minnesota City, $2.75; Thos. Tolbert, Wayzata, $2.60.

SINGLE PLATES.

	1st Prem.	2d Prem.	3d Prem.
Anism—			
F. I. Harris, La Crescent	$1.00		
J. A. Howard, Hammond		$0.75	
J. W. Lufkin, Viola			$0.50
Antonovka—			
F. I. Harris, La Crescent	1.00		
Ben Davis—			
Frank Yahnke, Winona	1.00		
J. A. Howard, Hammond		.75	
O. M. Lord, Minnesota City			.50
Brett—			
J. A. Howard, Hammond	1.00		
W. L. Parker, Farmington		.75	
Bovovinca—			
J. A. Howard, Hammond	1.00		
W. L. Parker, Farmington		.75	
L. W. Lufkin, Viola			.50
Borsdorff—			
J. A. Howard, Hammond	1.00		
Cross—			
W. L. Parker, Farmington	1.00		
F. I. Harris, La Crescent		.75	
Christmas—			
F. I. Harris, La Crescent	1.00		
Charlamoff—			
W. L. Parker, Farmington	1.00		
F. I. Harris, La Crescent		.75	
J. A. Howard, Hammond			.50
Fameuse—			
Frank Yahnke, Winona	1.00		
J. A. Howard, Hammond		.75	
F. I. Harris, La Crescent			.50
Golden Russett—			
Frank Yahnke, Winona	1.00		
O. M. Lord, Minnesota City		.75	
Grundy—			
J. A. Howard, Hammond	1.00		
Haas—			
W. L. Parker, Farmington	1.00		
J. A. Howard, Hammond		.75	
Judson—			
W. L. Parker, Farmington	1.00		
Kaump—			
J. A. Howard, Hammond	1.00		
Lowland Raspberry—			
W. L. Parker, Farmington	1.00		
Longfield—			
J. A. Howard, Hammond	1.00		
O. M. Lord, Minnesota City		.75	
F. I. Harris, La Crescent			.50
Malinda—			
J. A. Howard, Hammond	1.00		
Thos. Redpath, Wayzata		.75	
C. P. Nichols, Northfield			.50
McMahon White—			
J. A. Howard, Hammond		.75	
C. P. Nichols, Northfield			.50

	1st Prem.	2d Prem.	3d Prem.
Northwestern Greening—			
J. A. Howard, Hammond	1.00		
O. M. Lord, Minnesota City		.75	
Ostrokoff—			
F. I. Harris, La Crescent	1.00		
Peter—			
Frank Yahnke, Winona	1.00		
J. A. Howard, Hammond,		.75	
Thos. Redpath, Wayzata			.50
Phoebe—			
J. A. Howard, Hammond	1.00		
Peach—			
C. P. Nichols, Northfield	1.00		
Rollins Prolific—			
J. A. Howard, Hammond	1.00		
W. L. Parker, Farmington		.75	
Red Queen—			
J. A. Howard, Hammond	1.00		
J. W. Lufkin, Viola		.75	
Repka Malenka—			
W. L. Parker, Farmington	1.00		
O. M. Lord, Minnesota City		.75	
J. W. Lufkin, Viola			.50
St. Lawrence—			
W. L. Parker, Farmington	1.00		
Frank Yahnke, Winona		.75	
J. A. Howard, Hammond			.50
Striped Anis—			
J. A. Howard, Hammond	1.00		
Tetofsky—			
C. P. Nichols, Northfield	1.00		
W. L. Parker, Farmington		.75	
Utter—			
O. M. Lord, Minnesota City	1.00		
J. A. Howard, Hammond		.75	
University—			
W. L. Parker, Farmington	1.00		
Wolf River—			
W. L. Parker, Farmington	1.00		
J. A. Howard, Hammond		.75	
Walbridge—			
F. I. Harris, La Crescent	1.00		
Adolph Anderson, Renville		.75	
O. M. Lord, Minnesota City			.50
Yellow Sweet—			
J. W. Lufkin, Viola	1.00		
Yellow Transparent—			
C. P. Nichols, Northfield	1.00		
J. A. Howard, Hammond		.75	

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.	6th Prem.
Duchess—						
J. A. Howard, Hammond	$1.75					
W. L. Parker, Farmington		$1.50				
Thos. Redpath, Wayzata,			$1.25			
F. I. Harris, La Crescent				$1.00		
J. W. Lufkin, Viola					$0.75	
C. P. Nichols, Northfield						$0.50

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.	6th Prem.
Hibernal—						
J. A. Howard, Hammond	1.75					
W. L. Parker, Farmington		1.50				
O. M. Lord, Minnesota City			1.25			
C. P. Nichols, Northfield				1.00		
Thos. Redpath, Wayzata					.75	
J. W. Lufkin, Viola						.50
Okabena—						
W. L. Parker, Farmington	1.75					
J. A. Howard, Hammond		1.50				
O. M. Lord, Minnesota City			1.25			
Thos. Redpath, Wayzata				1.00		
Patten's Greening—						
J. A. Howard, Hammond	1.75					
W. L. Parker, Farmington		1.50				
Thos. Redpath, Wayzata			1.25			
C. P. Nichols, Northfield				1.00		
J. W. Lufkin, Viola					.75	
Peerless—						
W. L. Parker, Farmington	1.75					
Thos. Redpath, Wayzata		1.50				
J. A. Howard, Hammond			1.25			
C. P. Nichols, Northfield				1.00		
O. M. Lord, Minnesota City					.75	
Wealthy—						
F. I. Harris, La Crescent	1.75					
J. A. Howard, Hammond		1.50				
W. L. Parker, Farmington			1.25			
O. M. Lord, Minnesota City				1.00		
Adolph Anderson, Renville					.75	
Frank Yahnke, Winona						.50

Class 61—Apples.

(For Amateurs.)

Collection (hybrids and crabs excepted), $75 to be divided pro rata—

W. S. Widmoyer. Dresbach, $17.75; Ditus Day, Farmington, $15; Wm. Oxford, Freeburg, $15; H. H. Heins, Lydia, $12.25; A. D. Leach, Excelsior, $7.50; J. F. Wilcox, Minneapolis, $3.75.

Colleotion of hybrids and crabs, not to exceed ten varieties, $15 to be divided pro rata.

Ditus Day, Farmington, $3; A. B. Coleman, Long Lake, $2.40; A. D. Leach, Excelsior, $2.10; F. J. Butterfield, Long Lake, $2; Wm. Oxford, Freeburg, $1.75; Mrs. S. R. Spates, Wayzata, $1.50; H. F. Busse, Station A, Minneapolis, $1.25; J. F. Wilcox, Minneapolis, $1.

	1st Prem.	2d Prem.	3d Prem.
Anism—			
H. H. Heins, Lydia	$1.00		
H. F. Busse, Station A, Minneapolis		$0.75	
A. D. Leach, Excelsior			$0.50
Antonovka—			
F. J. Butterfield, Long Lake	1.00		
Dewain Cook, Jeffers		.75	
A. B. Coleman, Long Lake			.50
Ben Davis—			
Wm. Oxford, Freeburg	1.00		
W. S. Widmoyer, Dresbach		.75	
A. M. Mitchell, Hammond			.50

	1st Prem.	2d Prem.	3d Prem.
Brett—			
W. S. Widmoyer, Dresbach	1.00		
A. B. Coleman, Long Lake		.75	
A. B. Lyman, Excelsior			.50
Bode—			
W. S. Widmoyer, Dresbach	1.00		
Barovincia—			
Dewain Cook, Jeffers	1.00		
Wm. Oxford, Freeburg		.75	
A. B. Coleman, Long Lake			.50
Borsdorff—			
A. M. Mitchell, Hammond	1.00		
Cross—			
Dewain Cook, Jeffers	1.00		
Christmas—			
A. B. Lyman, Excelsior	1.00		
Charlamoff—			
A. B. Coleman, Long Lake	1.00		
A. B. Lyman, Excelsior		.75	
H. H. Heins, Lydia			.50
Fameuse—			
W. S. Widmoyer, Dresbach	1.00		
Wm. Oxford, Freeburg		.75	
Ditus Day, Farmington			.50
Golden Russet—			
Wm. Oxford, Freeburg	1.00		
A. M. Mitchell, Hammond		.75	
Grundy—			
A. M. Mitchell, Hammond	1.00		
H. H. Heins, Lydia		.75	
Haas—			
W. S. Widmoyer, Dresbach	1.00		
Ditus Day, Farmington		.75	
H. H. Heins, Lydia			.50
Judson—			
H. H. Heins, Lydia	1.00		
Kaump—			
A. B. Lyman, Excelsior	1.00		
Geo. W. Strand, Taylors Falls		.75	
J. R. Cummins, Washburn			.50
Lowland Raspberry—			
Ditus Day, Farmington	1.00		
A. B. Lyman, Excelsior		.75	
Longfield—			
S. M. Dickinson, Garden City	1.00		
A. W. Keays, Elk River		.75	
W. S. Widmoyer, Dresbach			.50
Malinda—			
Ditus Day, Farmington	1.00		
S. O. Miller, Lakeville		.75	
Dewain Cook, Jeffers			.50
McMahon White—			
Ditus Day, Farmington	1.00		
W. S. Widmoyer, Dresbach		.75	
Wm. Oxford, Freeburg			.50
Northwestern Greening—			
Wm. Oxford, Freeburg	1.00		
H. F. Busse, Station A, Minneapolis		.75	
W. S. Widmoyer, Dresbach			.50
Ostrokoff—			
Wm. Oxford, Freeburg	1.00		
W. S. Widmoyer, Dresbach		.75	

	1st Prem.	2d Prem.	3d Prem.
October—			
J. F. Wilcox, Minneapolis	1.00		
Peter—			
A. B. Coleman, Long Lake	1.00		
A. D. Leach, Excelsior		.75	
H. H. Heins, Lydia			.50
Phoebe—			
H. H. Heins, Lydia	1.00		
Peach—			
Ditus Day, Farmington	1.00		
Rollins Prolific—			
W. S. Widmoyer, Dresbach	1.00		
St. Lawrence—			
Wm. Oxford, Freeburg	1.00		
F. J. Butterfield, Long Lake		.75	
Ditus Day, Farmington			.50
Striped Anis—			
F. J. Butterfield, Long Lake	1.00		
D. C. Hazelton, Cutler		.75	
Tetosky—			
Wm. Oxford, Freeburg	1.00		
Utter—			
W. S. Widmoyer, Dresbach	1.00		
A. B. Lyman, Excelsior		.75	
Wm. Oxford, Freeburg			.50
University—			
A. D. Leach, Excelsior	1.00		
Wolf River—			
Wm. Oxford, Freeburg	1.00		
Leo Goldenstar, Garden City		.75	
W. S. Widmoyer, Dresbach			.50
Walbridge—			
F. J. Butterfield, Long Lake	1.00		
A. M. Mitchell, Hammond		.75	
Wm. Oxford, Freeburg			.50
Yellow Sweet—			
D. R. Cummins, Washburn	1.00		
A. W. Keays, Elk River		.75	
A. B. Lyman, Excelsior			.50
Yellow Transparent—			
F. J. Butterfield, Long Lake	1.00		
Wm. Oxford, Freeburg		.75	
A. B. Lyman, Excelsior			.50

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.	6th Prem.
Duchess—						
A. A. Bost, Excelsior	$1.75					
A. D. Leach, Excelsior		$1.50				
D. C. Hazelton, Cutler			$1.25			
A. M. Mitchell, Hammond				$1.00		
Paul Buetztaff, Stillwater					$0.75	
H. F. Busse, Station A, Minneapolis						$0.50
Hibernal—						
A. D. Leach, Excelsior	1.75					
A. W. Keays, Elk River		1.50				
D. T. Wheaton, Morris			1.25			
Ditus Day, Farmington				1.00		
H. F. Busse, Station A, Minneapolis					.75	
A. A. Bost, Excelsior						50

	1st Prem.	2d Prem.	3d Prem.	4th Prem.	5th Prem.	6th Prem.
Okabena—						
Ditus Day, Farmington	1.75					
Dewain Cook, Jeffers		1.50				
H. H. Heins, Lydia			1.25			
Leo Goldenstar, Garden City				1.00		
A. M. Mitchell, Hammond					.75	
H. F. Busse, Station A, Minneapolis						.50
Patten's Greening—						
A. D. Leach, Excelsior	1.75					
Minnetonka Nursery Co., Excelsior		1.50				
H. F. Busse, Station A, Minneapolis			1.25			
S. O. Miller, Lakeville				1.00		
Ditus Day, Farmington					.75	
A. B. Lyman, Excelsior						.50
Peerless—						
A. D. Leach, Excelsior	1.75					
A. B. Lyman, Excelsior		1.50				
S. O. Miller, Lakeville			1.25			
Minnetonka Nursery Co., Excelsior				1.00		
Mrs. S. R. Spates, Wayzata					.75	
Gust Johnson, Excelsior						.50
Wealthy—						
A. D. Leach, Excelsior	1.75					
H. H. Heins, Lydia		1.50				
H. F. Busse, Station A, Minneapolis			1.25			
W. S. Widmoyer, Dresbach				1.00		
F. J. Butterfield, Long Lake					.75	
Paul Buetztaff, Stillwater						.50

Class 62—Crabs and Hybrids.

(Open to All.)

Collection not to exceed ten varieties, $30 to be divided pro rata.

Thos. Talbert, Wayzata, $4.45; A. B. Coleman, Long Lake, $4.20; A. B. Lyman, Excelsior, $3.90; F. I. Harris, La Crescent, $3.70; C P. Nichols, Northfield, $3.70; H. H. Heins, Lydia, $3.70; D. F. Akin, Farmington, $265; A. D. Leach, Excelsior, $3.70.

SINGLE PLATES.

	1st Prem.	2d Prem.	3d Prem.
Dartt—			
W. J. Tingley, Stillwater	$1.00		
F. I. Harris, La Crescent		$0.75	
J. A. Howard, Hammond			$0.50
Early Strawberry—			
F. J. Butterfield, Long Lake	1.00		
C. P. Nichols, Northfield		.75	
J. A. Howard, Hammond			.50
Florence—			
A. A. Bost, Excelsior	1.00		
A. W. Keays, Elk River		.75	
Mrs. S. R. Spates, Wayzata			.50
Gideon's No. 6—			
W. L. Parker, Farmington	1.00		
J. A. Howard, Hammond		.75	
O. M. Lord, Minnesota City			.50
General Grant—			
W. L. Parker, Farmington	1.00		
J. A. Howard, Hammond		.75	
Ditus Day, Farmington			.50

	1st Prem.	2d Prem.	3d Prem.
Gibb—			
Mrs. S. R. Spates, Wayzata	1.00		
Hyslop—			
Leo Goldenstar, Garden City	1.00		
A. B. Coleman, Long Lake		.75	
D. C. Hazelton, Cutler			.50
Lyman's Prolific—			
A. A. Bost, Excelsior	1.00		
A. W. Keays, Elk River		.75	
A. B. Lyman, Excelsior			.50
Martha—			
W. L. Parker, Farmington	1.00		
J. A. Howard, Hammond		.75	
F. I. Harris, La Crescent			.50
Minnesota—			
H. F. Busse, Station A, Minneapolis	1.00		
H. H. Heins, Lydia		.75	
Paul Buetztaff, Stillwater			.50
Orange—			
Ditus Day, Farmington	1.00		
J. R. Cummins, Washburn		.75	
J. A. Howard, Hammond			.50
Pride of Minneapolis—			
F. J. Butterfield, Long Lake	1.00		
A. B. Coleman, Long Lake		.75	
Mrs. S. R. Spates, Wayzata			.50
Shields—			
H. F. Busse, Station A, Minneapolis	1.00		
A. D. Leach, Excelsior		.75	
O. M. Lord, Minnesota City			.50
Sweet Russet—			
W. L. Parker, Farmington	1.00		
F. I. Harris, La Crescent		.75	
J. A. Howard, Hammond			.50
Tonka—			
Thos. Redpath, Wayzata	1.00		
H. H. Heins, Lydia		.75	
Isabella Barton, Excelsior			.50
Transcendent—			
Gust Johnson, Excelsior	1.00		
A. D. Leach, Excelsior		.75	
W. J. Tingley, Stillwater			.50
Virginia—			
Thos. Redpath, Wayzata	1.00		
A. B. Coleman, Long Lake		.75	
W. S. Widmoyer, Dresbach			.50
Whitney—			
Wm. Oxford, Freeburg	1.00		
Paul Buetztaff, Stillwater		.75	
Mrs. S. R. Spates, Wayzata			.50

Class 63—Seedling Apples.

(Open to All.)

Collection, excluding crabs and hybrids—			
D. F. Akin, Farmington	$8.00		
A. B. Lyman, Excelsior		$6.00	
D. C. Hazelton, Cutler			$4.00
Collection of crabs and hybrids—			
A. B. Lyman, Excelsior	6.00		
D. C. Hazelton, Cutler		4.00	
J. R. Cummins, Washburn			2.00

	1st Prem.	2d Prem.	3d Prem.
Fall variety, not sweet, never having received a premium at the Minnesota State Fair—			
A. B. Lyman, Excelsior	6.00		
Thos. Redpath, Wayzata		4.00	
A. B. Lyman, Excelsior			2.00
Winter variety, not sweet, never having received a premium at the Minnesota State Fair—			
Frank Yahnke, Winona	10.00		
A. B. Lyman, Excelsior		8.00	
D. F. Akin, Farmington			2.00
Sweet variety, never having received a premium at the Minnesota State Fair, of such excellent quality as to make it worthy of general cultivation, either for fall or winter—			
Frank Yahnke, Winona	6.00		
A. B. Lyman, Excelsior		4.00	
Thos. Redpath, Wayzata			2.00

Class 64—Plums.

(Open to All.)

Sweepstakes collection. Open to all competitors and subject to all the foregoing rules, with the following modifications: First, the fruit need not have been grown by the exhibitor. Second, the collection is limited to twenty-five varieties each, may include any variety, seedling or otherwise, grown in Minnesota. Third, each plate shown must be plainly labeled with the name and address of its grower. Printed cards for this purpose will be furnished on application to the superintendent; $50 to be divided pro rata.

Martin Penning, Sleepy Eye, $20; Dewain Cook, Jeffers, $20; Jos. Wood, Windom, $10.

Collection (not to exceed fifteen varieties) in uniform one pint jars. To be accompanied by a statement of the method used in putting them up; $25 to be divided pro rata.

O. M. Lord, Minnesota City, $13; Dewain Cook, Jeffers, $12.

Collection, not to exceed fifteen varieties (not in glass); fruit of early ripening may be kept in cold storage; $25 to be divided pro rata.

Martin Penning, Sleepy Eye, $11.25; Dewain Cook, Jeffers, $8.75; Frank Yahnke, Winona, $5.

	1st Prem.	2d Prem.	3d Prem.
Cheney—			
W. J. Tingley, Stillwater	$1.00		
V. D. Caneday, Taylors Falls		$0.75	
A. W. Keays, Elk River			$0.50
De Sota—			
H. F. Busse, Station A, Minneapolis	1.00		
Frank Yahnke, Winona		.75	
W. H. Brinhall, Merriam Park			.50
American Eagle—			
Dewain Cook, Jeffers	1.00		
Forest Garden—			
Dewain Cook, Jeffers	1.00		
J. A. Howard, Hammond		.75	
W. J. Tingley, Stillwater			.50
Hawkeye—			
Dewain Cook, Jeffers	1.00		
A. W. Keays, Elk River		.75	
New Ulm—			
Dewain Cook, Jeffers	1.00		

	1st Prem.	2d Prem.	3d Prem.
Rockford—			
A. W. Keays, Elk River	1.00		
Dewain Cook, Jeffers		.75	
V. D. Caneday, Taylors Falls			.50
Rollingstone—			
Geo. W. Strand, Taylors Falls	1.00		
Frank Yahnke, Winona		.75	
A. W. Keays, Elk River			.50
Stoddard—			
Dewain Cook, Jeffers	1.00		
Frank Yahnke, Winona		.75	
H. F. Busse, Station A, Minneapolis			.50
Weaver—			
H. F. Busse, Station A, Minneapolis	1.00		
W. H. Brinhall, Merriam Park		.75	
Wolf—			
J. A. Howard, Hammond	1.00		
Dewain Cook, Jeffers		.75	
Gust Johnson, Excelsior			.50
Wyant—			
Frank Yahnke, Winona	1.00		
Dewain Cook, Jeffers		.75	
Seedling—			
Dewain Cook, Jeffers	5.00		
Martin Penning, Sleepy Eye		3.00	
A. W. Keays, Elk River			2.00
Pears—			
F. I. Harris, La Crescent	2.00		
Dewain Cook, Jeffers		1.00	
Peaches—			
Minnetonka Nursery Co., Excelsior	2.00		
Sand Cherries, Hybrids—			
A. W. Keays, Elk River	1.00		
A. D. Leach, Excelsior		.50	

Class 65—Grapes.

Collection $60, to be divided pro rata.

Gust Johnson, Excelsior, $32; A. A. Bost, Excelsior, $20; Isabella Barton, Excelsior, $8.

Agawan (Roger's No 15)—			
Gust Johnson, Excelsior	$1.50		
A. A. Bost, Excelsior		$1.00	
Aminia (Roger's No. 39)—			
Gust Johnson, Excelsior	1.50		
Barry (Roger's No. 43)—			
Gust Johnson, Excelsior	1.50		
Brighton—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Concord—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Isabella Barton, Excelsior			$0.50
Cottage—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Delaware—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Isabella Barton, Excelsior			.50

	1st Prem.	2d Prem.	3d Prem.
Duchess—			
Gust Johnson, Excelsior	1.50		
Early Victor—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
Eldorado—			
Isabella Barton, Excelsior	1.50		
Empire State—			
Gust Johnson, Excelsior	1.50		
Herbert (Roger's No. 44)—			
Gust Johnson, Excelsior	1.50		
Iona—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Janesville—			
A. A. Bost, Excelsior	1.50		
Lindley (Roger's No. 9)—			
Gust Johnson, Excelsior	1.50		
Lady—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Martha—			
Gust Johnson, Excelsior	1.50		
A. A. Bost, Excelsior		1.00	
Massasoit (Roger's No. 3)—			
Gust Johnson, Excelsior	1.50		
Moore's Early—			
A. A. Bost, Excelsior	1.50		
Gust Johnson, Excelsior		1.00	
Isabella Barton, Excelsior			.50
Niagara—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
Pocklington—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
A. A. Bost, Excelsior			.50
Pokeepsie, Red—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
Telegraph—			
Gust Johnson, Excelsior	1.50		
Wilder, Roger's No. 4—			
Gust Johnson, Excelsior	1.50		
Woodruff, red—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
Worden—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	
Wyoming, red—			
Gust Johnson, Excelsior	1.50		
Isabella Barton, Excelsior		1.00	

Class 66—Flowers.

(For Professionals.)

PLANTS.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Collection of foliage and decorative plants—				
Minneapolis Floral Co., Minneapolis	$35.00			
R. J. Mendenhall, Minneapolis		$30.00		
E. Nagel & Co., Minneapolis			$20.00	
John Vasatka, Minneapolis				$15.00
Collection of greenhouse plants—				
R. J. Mendenhall, Minneapolis	20.00			
Minneapolis Floral Co., Minneapolis		15.00		
E. Nagel & Co., Minneapolis			10.00	
John Vasatka, Minneapolis				5.00
Collection of climbing vines—				
R. J. Mendenhall, Minneapolis	2.00			
John Vasatka, Minneapolis		1.00		
E. Nagel & Co., Minneapolis			.50	
Collection of five hanging baskets, one of a kind—				
Minneapolis Floral Co., Minneapolis	4.00			
E. Nagel & Co., Minneapolis		3.00		
R. J. Mendenhall, Minneapolis			2.00	
Collection of coleus—				
John Vasatka, Minneapolis	2.00			
E. Nagel & Co., Minneapolis		1.00		
R. J. Mendenhall, Minneapolis			.50	
Collection of tuberous-rooted begonias—				
R. J. Mendenhall, Minneapolis	4.00			
Minneapolis Floral Co., Minneapolis		3.00		
John Vasatka, Minneapolis			2.00	
Single specimen palm—				
R. J. Mendenhall, Minneapolis	4.00			
John Vasatka, Minneapolis		3.00		
E. Nagel & Co., Minneapolis			2.00	
Minneapolis Floral Co., Minneapolis				1.00
Collection of geraniums, in bloom—				
John Vasatka, Minneapolis	4.00			
R. J. Mendenhall, Minneapolis		3.00		
Minneapolis Floral Co., Minneapolis			2.00	
E. Nagel & Co., Minneapolis				1.00
Collection of carnations, in bloom—				
E. Nagel & Co., Minneapolis	3.00			
John Vasatka, Minneapolis		2.00		
Minneapolis Floral Co., Minneapolis			1.00	
Vase filled with plants—				
E. Nagel & Co., Minneapolis	4.00			
Minneapolis Floral Co., Minneapolis		3.00		
R. J. Mendenhall, Minneapolis			2.00	
John Vasatka, Minneapolis				1.00

CUT FLOWERS.

	1st Prem.	2d Prem.	3d Prem.
Collection of asters—			
E. Nagel & Co., Minneapolis	$3.00		
Geo. Mohler, St. Paul		$2.00	
Minneapolis Floral Co., Minneapolis			$1.00
Collection of carnations—			
Minneapolis Floral Co., Minneapolis	3.00		
E. Nagel & Co., Minneapolis		2.00	
John Vasatka, Minneapolis			1.00

	1st Prem.	2d Prem.	3d Prem.
Collection of roses—			
Minneapolis Floral Co., Minneapolis	3.00		
R. J. Mendenhall, Minneapolis		2.00	
John Vasatka, Minneapolis			1.00
Collection of petunias—			
E. Nagel & Co., Minneapolis	2.00		
Geo. Mohler, St. Paul		1.00	
John Vasatka, Minneapolis			.50

DESIGNS, BASKETS AND BOUQUETS.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Floral design, cross and crown—				
Wm. Donaldson & Co., Minneapolis	$15.00			
E. Nagel & Co., Minneapolis		$10.00		
R. J. Mendenhall, Minneapolis			$6.00	
John Vasatka, Minneapolis				$4.00
Twelve-inch basket of flowers—				
Minneapolis Floral Co., Minneapolis	5.00			
E. Nagel & Co., Minneapolis		3.00		
R. J. Mendenhall, Minneapolis			2.00	
John Vasatka, Minneapolis				1.06
Pyramid bouquet—				
Minneapolis Floral Co., Minneapolis	3.00			
E. Nagel & Co., Minneapolis		2.00		
Alex. Kunze, St. Paul			1.00	
Hand bouquet, nine inches across—				
R. J. Mendenhall, Minneapolis	3.00			
Minneapolis Floral Co., Minneapolis		2.00		
E. Nagel & Co., Minneapolis			1.00	
John Vasatka, Minneapolis				.50
Bridal bouquet, white flowers—				
R. J. Mendenhall, Minneapolis	3.00			
Minneapolis Floral Co., Minneapolis		2.00		
John Vasatka, Minneapolis			1.00	

Class 67—Cut Flowers.

(For Amateurs.)

CUT FLOWERS.

	1st Prem.	2d Prem.	3d Prem.
Collection of asters—			
Mrs. R. Krause, Rose Town	$2.00		
Miss E. O'Reilly, Merriam Park		$1.00	
Mrs. A. E. Webster, Minneapolis			$0.50
Collection of coreopsis—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
F. H. Gibbes, St. Paul			.50
Collection of dahlias—			
Alex. Kunze, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Mrs. S. R. Spates, Wayzata			.50
Collection of everlasting flowers—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
F. H. Gibbes, St. Paul			.50
Collection of nasturtiums—			
F. H. Gibbes, St. Paul	2.00		
Mrs. E. R. Mohler, Merriam Park		1.00	
Mrs. A. E. Webster, Minneapolis			.50

	1st Prem.	2d Prem.	3d Prem.
Collection of pansies—			
Mrs. R. Krause, Rose Town	2.00		
F. H. Gibbes, St. Paul		1.00	
Miss E. O'Reilly, Merriam Park			.50
Collection of marguerite carnations—			
Mrs. A. E. Webster, Minneapolis	2.00		
F. H. Gibbes, St. Paul		1.00	
Alex. Kunze, St. Paul			.50
Collection of verbenas—			
F. H. Gibbes, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Mrs. A. E. Webster, Minneapolis			.50
Collection of zinnias—			
Miss E. O'Reilly, Merriam Park	2.00		
Mrs. E. R. Mohler, St. Paul		1.00	
Mrs. R. Krause, Rose Town			.50

Class 68—Mushrooms.

$50 to be divided pro rata among the exhibitors.

DIVISION H—HONEY, BEES AND APIARIAN SUPPLIES.

Premiums awarded	$389.00

Superintendent, N. S. Gordon, Crookston.

Assistant Superintendent, F. C. Erkel, Breckenridge.

Judge, G. R. Fry, River Falls, Wis.

Class 69—Honey.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Most attractive and finest display of comb honey—				
Moeser's Apiary, St. Louis Park	$12.00			
H. G. Acklin, St. Paul		$10.0		
F. W. Urie, Minneapolis			$7.00	
H. H. Heins, Lydia, Minn				$5.00
Case white clover honey, 12 to 24 pounds—				
Moeser's Apiary, St. Louis Park	10.00			
J. F. Ziemer, Waltham		6.00		
J. B. Jardine, Robbinsdale			4.00	
C. H. Harlan, Mora				2.00
Case basswood or linden comb honey, 12 to 24 pounds—				
H. H. Heins, Lydia	10.00			
C. H. Harlan, Mora		6.00		
F. W. Urie, Minneapolis			4.00	
H. G. Acklin, St. Paul				2.00
Case other white comb honey, 12 to 24 pounds—				
H. G. Acklin, St. Paul	10.00			
F. W. Urie, Minneapolis		6.00		
W. R. Ansell, St. Paul			4.00	
Case amber comb honey, 12 to 24 pounds—				
H. G. Acklin, St. Paul	10.00			
F. W. Urie, Minneapolis		6.00		
W. R. Ansell, St. Paul			4.00	

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Display of comb honey, in extracting frames—				
H. G. Acklin, St. Paul	6.00			
F. W. Urie, Minneapolis		4.00		
W. R. Ansell, St. Paul			2.00	
Moeser's Apiary, St. Louis Park		1.00		
Most attractive and finest display of extracted honey—				
Moeser's Apiary, St. Louis Park	10.00			
H. G. Acklin, St. Paul		6.00		
F. W. Urie, Minneapolis			4.00	
J. B. Jardine, Robbinsdale				2.00
Case extracted white clover honey, 12 pounds or more in glass, labeled—				
J. B. Jardine, Robbinsdale	10.00			
G. A. Forgerson, Rosemount		6.00		
F. W. Urie, Minneapolis			4.00	
Moeser's Apiary, St. Louis Park				2.00
Case extracted basswood or linden honey, 12 pounds or more in glass, labeled—				
H. G. Acklin, St. Paul	10.00			
Moeser's Apiary, St. Louis Park		6.00		
F. W. Urie, St. Paul			4.00	
J. B. Jardine, Robbinsdale				2.00
Case other white extracted honey, 12 or more pounds in glass, labeled—				
W. R. Ansell, St. Paul	10.00			
F. W. Urie, Minneapolis		6.00		
J. B. Jardine, Robbinsdale			4.00	
H. G. Acklin, St. Paul				2.00
Case extracted amber honey, 12 pounds or more in glass, labeled—				
W. R. Ansell, St. Paul	10.00			
F. W. Urie, Minneapolis		6.00		
J. B. Jardine, Robbinsdale			4.00	
H. G. Acklin, St. Paul				2.00
Display extracted honey from greatest number of flowers, in glass, labeled—				
H. G. Acklin, St. Paul	5.00			
Moeser's Apiary, St. Louis Park		3.00		
J. B. Jardine, Robbinsdale			1.00	
Display extracted honey, granulated or candied—				
H. G. Acklin, St. Paul	5.00			
Moeser's Apiary, St. Louis Park		4.00		
J. B. Jardine, Robbinsdale			3.00	
W. R. Ansell, St. Paul				2.00
Beeswax, best quality, 10 pounds or more—				
F. W. Urie, Minneapolis	5.00			
Moeser's Apiary, St. Louis Park		4.00		
H. G. Acklin, St. Paul			3.00	
W. R. Ansell, St. Paul				2.00
Honey vinegar, not less than one gallon in glass—				
F. W. Urie, Minneapolis	4.00			
H. G. Acklin, St. Paul		3.00		
Moeser's Apiary, St. Louis Park			2.00	
Best display of pies, sweetened with honey, quality considered—				
H. G. Acklin, St. Paul	4.00			
Moeser's Apiary, St. Louis Park		3.00		
Best display of honey cake, quality considered—				
H. G. Acklin, St. Paul	4.00			
Moeser's Apiary, St. Louis Park		3.00		

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Largest and best display of canned fruit, put up with honey—				
H. G. Acklin, St. Paul	4.00			
Moeser's Apiary, St. Louis Park		3.00		
W. R. Ansell, St. Paul			2.00	
Largest and best display of marmalades, jams and jellies, put up with honey—				
H. G. Acklin, St. Paul	4.00			
Moeser's Apiary, St. Louis Park		3.00		
Largest and best display of plain pickles, in honey vinegar—				
Moeser's Apiary, St. Louis Park	3.00			
H. G. Acklin, St. Paul		2.00		
Largest and best display of sweet pickles, put up with honey and honey vinegar—				
H. G. Acklin, St. Paul	3.00			
Moeser's Apiary, St. Louis Park		2.00		
Largest and best display, variety of uses for honey illustrated by individual samples of different things into which it enters, cake, pastry, meats, etc.—				
H. G. Acklin, St. Paul	4.00			
Moeser's Apiary, St. Louis Park		3.00		
W. R. Ansell, St. Paul			2.00	
Nucleus of golden yellow Italian bees and queen—				
Moeser's Apiary, St. Louis Park	4.00			
J. B. Jardine, Robbinsdale		3.00		
F. W. Urie, Minneapolis			2.00	
J. B. Jardine, Robbinsdale				1.00
Nucleus of dark or leather-color Italian bees and queen—				
W. R. Ansell, St. Paul	4.00			
H. G. Acklin, St. Paul		3.00		
Moeser's Apiary, St. Louis Park			2.00	

GRAND SWEEPSTAKES.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Largest, best and most attractive exhibition in this department, all things considered—				
H. G. Acklin, St. Paul	12.00			
Moeser's Apiary, St. Louis Park		10.00		
F. W. Urie, Minneapolis			7.00	
J. B. Jardine, Robbinsdale				5.00

REPORT OF SUPERINTENDENT OF DIVISION J.

Crookston, Minn., Dec. 3, 1902.

To the Honorable Members of the Board of Managers of the Minnesota State Agricultural Society:

I take pleasure this year in submitting my report of Division J. The exhibits in the agricultural department this year surpassed those of any previous year, both in quantity and quality. Every inch of available space was utilized, and yet we were crowded. There were a few displays also that ought to have been given space in this building, but on account of the crowded condition they were compelled to seek quarters elsewhere on the grounds

On account of a lack of railroad facilities three counties that had applied for space were unable to reach the grounds in time to put up their exhibits, which in one particular might be considered fortunate on account of the crowded condition of the building.

All the exhibits in this department were delayed, some of them not being unloaded from the cars until late Sunday afternoon. There should be some way provided whereby better facilities might be had another year for getting cars from the Minnesota Transfer to the grounds, and for unloading the cars after they have reached the grounds.

I have already assigned space for five county exhibits for next year, and the prospects now are that the increase in this department next year will be much greater than for any previous year. I feel that I am quite conservative when I predict a large increase in this department for next year's fair. This being true, it is safe to say that the agricultural building will not be able to accommodate the horticultural department, and some provision will necessarily have to be made for that department. The agricultural and honey departments will fill the building comfortably full.

Our fair has grown in all departments so rapidly that we need larger and more commodious buildings, and I trust the legislature this winter will see in their wisdom the necessity of providing means for at least a live stock amphitheatre, and such other buildings as are absolutely necessary, in order to keep up with the growth of the fair, which is but an index of the agricultural development of the state.

The Minnesota State Fair for 1902 was remarkably successful in every particular, and the members of this board have a right to feel gratified at the unprecedented success of the fair of 1902, both from an educational standpoint and financially.

Respectfully submitted,
N. S. GORDON.

DIVISION J—VEGETABLES.

Premiums awarded $2,727.50

Superintendent, N. S. Gordon, Crookston.

Assistant Superintendent, W. A. Lanctot, Crookston.

Judge, Shepperd.

Class 70—Vegetables.

	1st Prem.	2d Prem.	3d Prem.
Collection of fifteen varieties—			
F. H. Gibbs, Merriam Park	$10.00		
Mrs. R. Krause, Rose Town		$7.50	
Daniel Gantzer, Rose Town			$5.00
Collection of beets, six of each variety—			
Mrs. R. Krause, Rose Town	3.00		
Daniel Gantzer, Rose Town		2.00	
Collection of cabbage, three of each—			
H. F. Busse, Minneapolis	3.00		
Mrs. R. Krause, Rose Town		2.00	
Daniel Gantzer, Rose Town			1.00
Collection of carrots, one peck of each—			
Daniel Gantzer, Rose Town	3.00		
Mrs. R. Krause, Rose Town		2.00	
Collection of celery, six bunches of each—			
P. Rollinger, St. Paul	3.00		
Collection of sweet corn, six ears of each—			
Mrs. R. Krause, Rose Town	3.00		

	1st Prem.	2d Prem.	3d Prem.
Collection of cucumbers, five of each—			
Mrs. R. Krause, Rose Town	3.00		
H. F. Busse, Minneapolis		2.00	
Daniel Gantzer, Rose Town			1.00
Collection of onions, one-half peck of each—			
Daniel Gantzer, Rose Town	3.00		
Mrs. R. Krause, Rose Town		2.00	
H. F. Busse, Minneapolis			1.00
Collection of watermelons, two of each—			
Daniel Gantzer, Rose Town	3.00		
Mrs. R. Krause, Rose Town		2.00	
Collection of muskmelons, two of each—			
Mrs. R. Krause, Rose Town	3.00		
Daniel Gantzer, Rose Town		2.00	
Collection of tomatoes, one-half peck of each—			
Mrs. R. Krause, Rose Town	3.00		
Daniel Gantzer, Rose Town		2.00	
F. F. Farrar, White Bear			1.00
Collection of peppers, one-quarter peck of each—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
F. F. Farrar, White Bear			.50
Collection of early potatoes, one-half peck of each—			
Joseph Taylor, Medford	5.00		
F. F. Farrar, White Bear		4.00	
Mrs. R. Krause, Rose Town			3.00
Collection of late potatoes, one-half peck of each—			
Joseph Taylor, Medford	5.00		
Mrs. R. Krause, Rose Town		4.00	
Daniel Gantzer, Rose Town			3.00
Collection of squashes, three of each—			
Mrs. R. Krause, Rose Town	3.00		
Daniel Gantzer, Rose Town		2.00	
H. F. Busse, Minneapolis			1.00
Collection of turnips, one-half peck of each—			
Daniel Gantzer, Rose Town	3.00		
Mrs. R. Krause, Rose Town		2.00	
Collection of bressica, including cabbage, cauliflower, kohl rable, brussels sprouts, kale, rape, cow cabbage—			
Daniel Gantzer, Rose Town	3.00		
Mrs. R. Krause, Rose Town		2.00	
Collection of gourds—			
Mrs. R. Krause, Rose Town	3.00		

SINGLE VARIETIES.

(Farmers' Class.)

Beans in edible green pod, one-half peck—			
Daniel Gantzer, Rose Town	$2.00		
Mrs. R. Krause, Rose Town		$1.00	
F. H. Gibbs, St. Paul			$0.50
Beans, white or white navy, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
F. F. Farrar, White Bear		1.00	
Tom Breyer, St. Paul			.50
Beans, dwarf Lima, three fresh plants with pod—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
F. H. Gibbs, St. Paul			.50
Beans, pole Lima, three fresh plants with pod—			
Daniel Gantzer, Rose Town	2.00		
F. H. Gibbs, St. Paul		1.00	

	1st Prem.	2d Prem.	3d Prem.
Mrs. R. Krause, Rose Town			.50
Beans, white kidney, one-half peck—			
Alfred Loeffel, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
F. H. Gibbs, Merriam Park			.50
Beans, castor, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
C. H. Murphy, Caledonia, Minn			.50
Beans, Marrowfat, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
Tom Breyer, St. Paul		1.00	
Beans of any other variety, one-half peck of each—			
Mrs. R. Krause, Rose Town	2.00		
F. H. Gibbs, St. Paul		1.00	
Daniel Gantzer, Rose Town			.50
Beets, long red table, one-half peck—			
W. A. Wessinger, St. Paul	2.00		
Mrs. R. Krause		1.00	
Daniel Gantzer, Rose Town			.50
Beets, turnip shaped, table, one-half peck—			
F. H. Gibbs, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
W. A. Wessinger, St. Paul			.50
Beets, sugar, six specimens—			
Adfred Loeffel, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
Beets, mangel wurzels, three specimens—			
Alex Kunze, St. Paul	2.00		
H. F. Busse, Minneapolis		1.00	
Mrs. Krause, Rose Town			.50
Beets of any other variety, one-half peck—			
Daniel Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Alfred Loeffel, Merriam Park			.50
Cabbage, drum head, any variety—			
Alfred Loeffel, Merriam Park	2.00		
H. F. Busse, Minneapolis		1.00	
Mrs. R. Krause, Rose Town			.50
Cabbage, round-head, any variety, three—			
Alfred Loeffel, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
F. F. Farrar, White Bear			.50
Cabbage, pointed or conical, any variety, three—			
W. A. Wessinger, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50
Cabbage, largest late, any variety, three—			
W. A. Wessenger, Merriam Park	2.00		
Cabbage, red, three—			
H. F. Busse, Minneapolis	2.00		
Chas. Giesman, Merriam Park		1.00	
Daniel Gantzer, Rose Town			.50
Cabbage, any other variety, three—			
Daniel Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
H. F. Busse, Minneapolis			.50
Carrots, for table use, one-half peck—			
W. A. Wessenger, Merriam Park	3.00		
Daniel Gantzer, Rose Town		2.00	
Mrs. R. Krause, Rose Town			1.00

	1st Prem.	2d Prem.	3d Prem.
Carrots, for stock, one-half peck—			
Mrs. R. Krause, Rose Town	3.00		
Daniel Gantzer, Rose Town		2.00	
Joseph Taylor, Medford			1.00
Cauliflower, three specimens, any variety—			
F. A. Gibbs, St. Paul	2.00		
Bosshard Bros., Moorhead		1.00	
Daniel Gantzer, Rose Town			.50
Celery, golden, self-blanching, six bunches—			
P. Rollinger, St. Paul	2.00		
Celery, giant pascal, six bunches—			
P. Rollinger, St. Paul	2.00		
Celery, white plume, six bunches—			
P. Rollinger, St. Paul	2.00		
Celery, any other variety, six bunches—			
P. Rollinger, St. Paul	2.00		
Daniel Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Corn, sweet, Early Minnesota, six ears—			
Tom Breyer, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
Corn, sweet, Extra Early Cory, six ears—			
Mrs. R. Krause, Rose Town	2.00		
Tom Breyer, St. Paul		1.00	
Alfred Loeffel, Merriam Park			.50
Corn, sweet, Crosby, Perry's hybrid and similar kinds, three ears—			
F. A. Gibbs, St. Paul	2.00		
Tom Breyer, St. Paul		1.00	
B. T. Hoyt, St. Paul			.50
Corn, sweet, Stowell's Evergreen, three ears—			
Tom Breyer, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
B. T. Hoyt, St. Paul			.50
Corn, sweet, Zig Zag Evergreen, including Country Gentleman and similar kinds, three ears—			
B. T. Hoyt, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
Corn, sweet, any other variety, three ears—			
Mrs. R. Krause, Rose Town	2.00		
B. T. Hoyt, St. Paul		1.00	
Cucumbers, white spine, table, six specimens—			
W. H. Brimhall, Merriam Park	2.00		
Daniel Gantzer, Rose Town		1.00	
Alex Kunze, St. Paul			.50
Cucumbers, largest, six specimens—			
Mrs. R. Krause, Rose Town	2.00		
Tom Breyer, St. Paul		1.00	
Alfred Loeffel, Merriam Park			.50
Cucumbers, best pickling, two to four inches long, one-half peck—			
W. H. Brimhall, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50
Egg-plant, long purple, three—			
F. F. Farrar, White Bear	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50

	1st Prem.	2d Prem.	3d Prem.
Egg-plant, New York purple, three—			
Daniel Gantzer, Rose Town	2.00		
Alex Kunze, St. Paul		1.00	
F. A. Gibbs, St. Paul			.50
Lettuce, head, six specimens of each—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
P. Rollinger, St. Paul			.50
Lettuce, curly leaf, six bunches of each—			
F. A. Gibbs, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50
Onions, Danvers yellow globe, one-half peck—			
F. A. Gibbs, St. Paul	2.00		
Bosshard Bros., Moorhead		1.00	
Daniel Gantzer, Rose Town			.50
Onions, prize takers, one-half peck—			
Daniel Gantzer, Rose Town	2.00		
W. A. Wessenger, Merriam Park		1.00	
Mrs. R. Krause, Rose Town			.50
Onions, red Weathersfield, one-half peck—			
F. A. Gibbs, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50
Onions, early red flat, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
F. F. Farrar, White Bear			.50
Onions, white globe, one-half peck—			
F. A. Gibbs, St. Paul	2.00		
Daniel Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Onions, American silver skinned, one-half peck—			
B. T. Hoyt, St. Paul	2.00		
Daniel Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Onions, Spanish King, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
Onions, Early White Queen—			
Daniel Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
B. T. Hoyt, St. Paul			.50
Onions, of any other variety, one-half peck—			
Daniel Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
W. A. Wessenger, Merriam Park			.50
Onion sets, white bottom, two quarts—			
C. C. Gray, Rochester	2.00		
F. A. Gibbs, St. Paul		1.00	
Mrs. R. Krause, Rose Town			.50
Onion sets, red bottom, two quarts—			
Mrs. R. Krause, Rose Town	2.00		
Daniel Gantzer, Rose Town		1.00	
Onion sets, yellow bottom, two quarts—			
C. C. Gray, Rochester	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50

	1st Prem.	2d Prem.	3d Prem.
Onion sets, red top, two quarts—			
Alfred Loeffel, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
Daniel Gantzer, Rose Town			.50
Onion sets, yellow top, two quarts—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Onion sets, white multipliers, two quarts—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
C. H. Murphy, Caledonia			.50
Onion sets, Egyptian or perennial, two quarts—			
D. Gantzer, Rose Town	2.00		
Parsnips, long smooth, one-half peck—			
Alfred Loeffel, Merriam Park	2.00		
Alex. Kunze, St. Paul		1.00	
D. Gantzer, Rose Town			.50
Parsnips, early round, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Peas, in green pod—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Alfred Loeffel, Merriam Park			.50
Peas, Canadian golden vine, one-half peck—			
D. Gantzer, Rose Town	2.00		
Peas, any other variety, one-half peck of each—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Peppers, large, six each—			
C. C. Gray, Rochester	2.00		
Alfred Loeffel, Merriam Park		1.00	
D. Gantzer, Rose Town			.50
Potatoes, Early Rose, one-half peck—			
Joseph Taylor, Medford	2.00		
H. F. Busse, Minneapolis		1.00	
C. N. Howe, Aitkin			.50
Potatoes, Early Ohio, one-half peck—			
F. A. Gibbs, St. Paul	2.00		
F. F. Farrar, White Bear		1.00	
Alfred Loeffel, Merriam Park			.50
Potatoes, Early, six weeks, one-half peck—			
Joseph Taylor, Medford	2.00		
Mrs. R. Krause, Rose Town		1.00	
Potatoes, Sir William, one-half peck—			
Joseph Taylor, Medford	2.00		
D. Gantzer, Rose Town		1.00	
Potatoes, Beauty of Hebron, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
H. F. Busse, Minneapolis			.50
Potatoes, Burbank Seedling, one-half peck—			
D. Gantzer, Rose Town	2.00		
Joseph Taylor, Medford		1.00	
B. T. Hoyt, St. Paul			.50
Potatoes, Bovee, one-half peck—			
Joseph Taylor, Medford	2.00		
Mrs. R. Krause, Rose Town		1.00	
E. W. Hendrickson, Forest Lake			.50

	1st Prem.	2d Prem.	3d Prem.
Potatoes, Rural New Yorker, one-half peck—			
Leo Goldenstar, Garden City	2.00		
Joseph Taylor, Medford		1.00	
Aug. Geisman, Merriam Park			.50
Potatoes, White Elephant, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Potatoes, early harvest, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
W. H. Brimhall, Merriam Park			.50
Potatoes, Carman No. 3, one-half peck—			
O. C. Thompson, Farmington	2.00		
Alfred Loeffel, Merriam Park		1.00	
W. L. Parker, Farmington			.50
Potatoes, Maggie Murphy, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
Joseph Taylor, Medford		1.00	
D. Gantzer, Rose Town			.50
Potatoes, Sir Walter Raleigh, one-half peck—			
W. H. Brimhall, Merriam Park	2.00		
Alfred Loeffel, Merriam Park		1.00	
A. H. Gruenhagen, Norwood			.50
Collection of early varieties, not named above, one-half peck each—			
Mrs. R. Krause, Rose Town	7.00		
C. P. Nichols, Northfield		5.00	
B. T. Hoyt, St. Paul			3.00
Collection of main crop varieties, not named above, one-half peck each—			
B. T. Hoyt, St. Paul	7.00		
Mrs. R. Krause, Rose Town		5.00	
Joseph Taylor, Medford			3.00
Potatoes, sweet, one-half peck—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Pumpkins, field, three specimens—			
F. A. Gibbes, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Alfred Loeffel, Merriam Park			.50
Pumpkin pie, three specimens—			
F. A. Gibbes, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Pumpkin, the largest—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
W. A. Wessenger, Merriam Park			.50
Radishes, any winter variety, two quarts—			
Mrs. R. Krause, Rose Town	2.00		
C. C. Gray, Rochester		1.00	
D. Gantzer, Rose Town			.50
Radishes, scarlet turnip, six specimens—			
Alfred Loeffel, Merriam Park	2.00		
Bosshard Bros., Moorhead		1.00	
F. A. Gibbes, St. Paul			.50
Radishes, white turnip, six specimens—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Radishes, long scarlet, six specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	

	1st Prem.	2d Prem.	3d Prem.
Radishes, long white, Strassburg, six specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Radishes of any other variety, six specimens—			
Alex Kunze, St. Paul	2.00		
Mrs. R. Krause, Rose Town		1.00	
D. Gantzer, Rose Town			.50
Rutabagas, for stock, any variety, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Thos. Kough, Taopi			.50
Rutabagas, for table use, any variety, one-half peck—			
Thos. Kough, Taopi	2.00		
Joseph Taylor, Medford		1.00	
Alfred Loeffel, Merriam Park			.50
Salsify, largest and smoothest roots—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Alex Kunze, St. Paul			.50
Squash, Hubbard, three specimens—			
F. A. Gibbes, St. Paul	2.00		
Tom Breyer, St. Paul		1.00	
W. H. Brimhall, Merriam Park			.50
Squash, Marblehead, three specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Squash, winter or crook neck, three specimens—			
Alfred Loeffel, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
D. Gantzer, Rose Town			.50
Squash, summer, three specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
H. F. Busse, Minneapolis			.50
Squash, Boston Marrow, three specimens—			
H. F. Busse, Minneapolis	2.00		
W. A. Wessenger, Merriam Park		1.00	
D. Gantzer, Rose Town			.50
Squash, the largest—			
Aug. Giesman, Merriam Park	2.00		
Chas. Giesman, Merriam Park		1.00	
D. Gantzer, Rose Town			.50
Sunflower, Mammoth Russian, three stalks—			
W. A. Wessenger, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
Wm. Fritze, St. Paul			.50
Sunflower, White Beauty, three stalks—			
D. Gantzer, Rose Town	2.00		
W. A. Wessenger, Merriam Park		1.00	
Mrs. R. Krause, Rose Town			.50
Swiss Chard, three bunches—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Tomatoes, Beauty, one-half peck—			
Alfred Loeffel, Merriam Park	2.00		
F. A. Gibbes, St. Paul		1.00	
Alex. Kunze, St. Paul			.50
Tomatoes, Acme, one-half peck—			
D. Gantzer, Rose Town	2.00		
F. A. Gibbes, St. Paul		1.00	
Alfred Loeffel, Merriam Park			.50

	1st Prem.	2d Prem.	3d Prem.
Tomatoes, Dwarf Champion, one-half peck—			
Tom Breyer, St. Paul	2.00		
H. F. Busse, Minneapolis		1.00	
F. A. Gibbes, St. Paul			.50
Tomatoes, Lorillard, one-half peck—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Tomatoes, Ponderosa, one-half peck—			
Alfred Loeffel, Merriam Park	2.00		
F. A. Dapron, St. Paul		1.00	
D. Gantzer, Rose Town			.50
Tomatoes, large yellow, one-half peck—			
C. Waldmann, Minneapolis	2.00		
Mrs. R. Krause, Rose Town		1.00	
Tomatoes, large yellow plum, one-half peck—			
Alex Kunze, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Turnips, strap leaf, purple top, one-half peck—			
Alex Kunze, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Mrs. R. Krause, Rose Town			.50
Turnips, white globe, one-half peck—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Watermelon, light icing, two specimens—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Watermelon, dark icing, two specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Watermelons, Cuban Queen, two specimens—			
D. Gantzer, Rose Town	2.00		
Watermelons, Mountain Sweet, two specimens—			
D. Gantzer, Rose Town	2.00		
Watermelons, Iron Clad, two specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Muskmelons, Miller, Cream or Osage, two specimens—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Muskmelons, Hackensack, two specimens—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	
Muskmelons, California Citron, two specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Muskmelons, White Netted Japan, two specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Muskmelons, Rockyford, two specimens—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
Geo. Mohler, St. Paul			.50
Muskmelons, Emerald Gem, two specimens—			
Mrs. R. Krause, Rose Town	2.00		
D. Gantzer, Rose Town		1.00	

FIELD CROPS—GRAINS.

	1st Prem.	2d Prem.	3d Prem.	4th Prem.
Wheat, red fife, one peck—				
G. C. Towner, Morris	$5.00			
D. T. Wheaton, Morris		$4.00		
W. A. Wessenger, Merriam Park			$3.00	
Tom Breyer, St. Paul				$1.00
Wheat, blue stem, one peck—				
D. T. Wheaton, Morris	5.00			
H. H. Heins, Lydia		4.00		
B. T. Hoyt, St. Paul			3.00	
C. J. Anderson, Clinton				1.00
Wheat, winter, red, one peck—				
C. H. Murphy, Caledonia	5.00			
A. Schleicher, Caledonia		4.00		
H. H. Heins, Lydia			3.00	
Wheat, winter, light, one peck—				
C. H. Murphy, Caledonia		5.00		
Wheat, Minnesota No. 163, one peck—				
C. H. Murphy, Caledonia	5.00			
A. H. Gruenhagen, Norwood		4.00		
A. Schleicher, Caledonia			3.00	
D. T. Wheaton, Morris				1.00
Wheat, any other variety, one peck—				
A. H. Gruenhagen, Norwood	5.00			
C. H. Murphy, Caledonia		4.00		
B. T. Hoyt, St. Paul			3.00	
Wheat, best collection of three or more varieties, one peck—				
D. T. Wheaton, Morris	5.00			
W. A. Wessenger, Merriam Park		4.00		
C. H. Murphy, Caledonia			3.00	
Barley, white, six-rowed, one peck—				
W. A. Wessenger, Merriam Park		$4.00		
Barley, white, long, two-rowed, one peck—				
C. H. Murphy, Caledonia		4.00		
Tom Breyer, St. Paul			$2.00	
A. Schleicher, Caledonia				$1.00
Barley, black, one peck—				
D. T. Wheaton, Morris		4.00		
C. H. Murphy, Caledonia			2.00	
G. C. Towner, Morris				1.00
Barley, any other variety, one peck—				
C. H. Murphy, Caledonia		4.00		
Tom Breyer, St. Paul			2.00	
Oats, white, side panicle, one peck—				
B. T. Hoyt, St. Paul		4.00		
D. T. Wheaton, Morris			2.00	
W. A. Wessenger, Merriam Park				1.00
Oats, white, spread panicle, one peck—				
D. T. Wheaton, Morris		4.00		
B. T. Hoyt, St. Paul			2.00	
W. L. Parker, Farmington				1.00
Oats, any other variety, one peck—				
C. H. Murphy, Caledonia		4.00		
A. Schleicher, Caledonia			2.00	
Rye, winter, one peck—				
Tom Breyer, St. Paul		4.00		
E. W. Hendrickson, Forest Lake			2.00	
C. H. Murphy, Caledonia				1.00

	1st Prem.	2d Prem.	3d Prem.
Rye, spring, one peck—			
B. T. Hoyt, St. Paul	4.00		
C. H. Murphy, Caledonia		2.00	
D. T. Wheaton, Morris			1.00
Buckwheat, silver hulled, one peck—			
C. H. Murphy, Caledonia	4.00		
B. T. Hoyt, St. Paul.		2.00	
Buckwheat, common black, one peck—			
A. Schleicher, Caledonia	4.00		
C. H. Murphy, Caledonia		2.00	
Corn. broom straw, ten stalks—			
Tom Breyer, St. Paul	4.00		
C. H. Murphy, Caledonia		3.00	
Matt Schleicher, Caledonia			2.00
Corn, white dent, fifteen ears—			
Tom Breyer, St. Paul	4.00		
Mrs. R. Krause, Rose Town		3.00	
D. Gantzer, Rose Town			2.00
Corn, yellow dent, fifteen ears—			
W. A. Wessenger, Merriam Park	4.00		
C. H. Murphy, Caledonia		3.00	
Alfred Loeffel, Merriam Park			2.00
Corn, yellow flint, fifteen ears—			
Tom Breyer, St. Paul	4.00		
Corn, yellow flint, fifteen ears—			
Tom Breyer, St. Paul	4.00		
Minnesota No. 13, fifteen ears—			
Leo. Goldenstar, Caledonia	4.00		
Joseph Taylor, Medford		3.00	
Corn, pop, early red jacket, fifteen ears—			
D. Gantzer, Rose Town	2.00		
Mrs. R. Krause, Rose Town		1.00	
W. A. Wessenger, Merriam Park			.50
Corn, pop, white rice, fifteen ears—			
Mrs. R. Krause, Rose Town	2.00		
Tom Breyer, St. Paul		1.00	
W. A. Wessenger, Merriam Park.			.50
Corn, pop, any other variety, fifteen ears—			
W. A. Wessenger, Merriam Park	2.00		
Mrs. R. Krause, Rose Town		1.00	
Corn, broom, seed, ten heads—			
A. Schleicher, Caledonia	2.00		
Matt Schleicher, Caledonia		1.00	
C. H. Murphy, Caledonia			.50
Flax seed, one peck—			
Tom Breyer, St. Paul	3.00		
D. T. Wheaton, Morris		2.00	
B. T. Hoyt, St. Paul			1.00
Flax grown for fibre, bundle six inches in diameter—			
A. Lee, Morris	3.00		
C. C. Gray, Rochester		2.00	
Timothy seed, one peck—			
Tom Breyer, St. Paul	2.00		
W. A. Wessenger, Merriam Park		1.00	
C. H. Murphy, Caledonia			.50
Timothy, in straw—			
C. H. Murphy, Caledonia	2.00		
C. C. Gray, Rochester		1.00	
D. T. Wheaton, Morris			.50

	1st Prem.	2d Prem.	3d Prem.
Brome grass seed, one peck—			
D. T. Wheaton, Morris	2.00		
C. H. Murphy, Caledonia		1.00	
A. Schleicher, Caledonia			.50
Brome grass, in straw—			
Crandall Bros., Red Wing	2.00		
D. T. Wheaton, Morris		1.00	
C. H. Murphy, Caledonia			.50
Millet or Hungarian seed, one peck—			
D. T. Wheaton, Morris	2.00		
C. H. Murphy, Caledonia		1.00	
Leo Goldenstar, Garden City			.50
Millet or Hungarian straw—			
C. C. Gray, Rochester	2.00		
J. Brown, Morris		1.00	
D. T. Wheaton, Morris			.50
Red Clover seed, one peck—			
C. H. Murphy, Caledonia	2.00		
A. Schleicher, Caledonia		1.00	
Red Clover, in bundles—			
B. T. Hoyt, St. Paul	2.00		
D. Gantzer, Rose Town		1.00	
Tom Breyer, St. Paul			.50
Mammoth Clover seed, one peck—			
C. H. Murphy, Caledonia	2.00		
A. Schleicher, Caledonia		1.00	
Mammoth clover, in bundles—			
Crandall Bros., Red Wing	2.00		
C. H. Murphy, Caledonia		1.00	
Alsike clover seed, one peck—			
C. H. Murphy, Caledonia		2.00	
Alsike clover, in bundles—			
C. H. Murphy, Caledonia	2.00		
C. C. Gray, Rochester		1.00	
Field peas, white, one peck--			
C. H. Murphy, Caledonia	2.00		
B. T. Hoyt, St. Paul		1.00	
A. Schleicher, Caledonia			.50
Field peas, blue, one peck—			
C. H. Murphy, Caledonia	2.00		
D. Gantzer, Caledonia		1.00	
Tom Breyer, St. Paul			.50
Field peas, Marrowfat, one peck—			
C. H. Murphy, Caledonia	2.00		
Sorghum, any named variety seed, one peck—			
D. T. Wheaton, Morris	2.00		
Sorghum, any named variety, ten stalks—			
W. A. Wessenger, Merriam Park	2.00		
C. H. Murphy, Caledonia		1.00	
A. Schleicher, Caledonia			.50

Class 71—County Exhibits.

For the exhibit scoring highest in this class an additional $200 will be paid; for the exhibit scoring second highest, $150; for the exhibit scoring third highest, $100; for the exhibit scoring fourth highest, $75; for the exhibit scoring fifth highest, $50; for the exhibit scoring sixth highest, $25.

Lot.

186. Display of grains, grasses, vegetables, fruits and other agricultural and horticultural products, by any county or local agricultural or horticultural society in Minnesota (outside of Hennepin and Ramsey counties); no portion of display to be entered for individual premiums $1,200.00

No exhibit scoring less than seventy points will be permitted to participate in the pro-rata division of the premium money. Entries in this class must be made by Saturday, August 23d, to insure space.

Points.		Houston County.	Wabasha County.	Olmstead County.	Blue Earth County.	Dakota County.	Goodhue County.	Stearns County.	Aitkin County.	Stevens County.
200	Grains, not less than five varieties	180	190	180	190	180	190	185	160	170
200	Grains in sheaf, not less than five varieties	180	190	175	180	170	180	170	170	145
100	Native grass	90	90	100	90	90	95	80	75	80
100	Tame grass	95	95	90	95	85	75	85	85	70
100	Rape, sorghum and other forage plants	95	95	75	85	85	75	60	85	85
100	Potatoes, not less than ten varieties	85	95	95	95	80	70	85	80	75
100	Stock vegetables and peas	90	95	90	75	75	70	80	75	80
100	Culinary vegetables	90	70	90	80	85	85	70	60	55
100	Fruits	90	90	90	75	85	90	55	60	70
100	Miscellaneous	95	80	85	80	90	50	85	60	70
100	Greatest number of varieties	100	90	80	70	65	65	75	65	70
100	Design and taste in arrangement	85	75	80	80	80	75	75	75	50
	Total percentage	1,275	1,255	1,230	1,195	1,170	1,120	1,105	1,050	1,020
	Money awarded	$146.77	$145.16	$141.93	$137.10	$133.87	$129.04	$127.42	$120.97	$117.74
	Premiums, special	200.00	150.00	100.00	75.00	50.00	25.00	....	....	....
	Total	$346.77	$295.16	$241.93	$212.10	$183.87	$154.04	$127.42	$120.97	$117.74
	Grade	1	2	3	4	5	6	7	8	9

Class 72—Farm Exhibits.

187 Display of grains, grasses, vegetables, fruits and other agricultural and horticultural products by any farmer in Minnesota; no portion of display to be entered for individual premiums.................... $100.00

No exhibit scoring less than seventy points will be permitted to participate in the pro rata division of the premium money.

For the exhibit scoring highest in this class an additional $12 will be paid; for the exhibit scoring second highest, $8; for the exhibit scoring third highest, $5.

Points.		B. T. Hoyt, St. Paul.	Crandou Bros., Red Wing.	C. H. Murphy, Calodonia.	Golden Star, Gardon City.	O. C. Thompson, Farrington	W. L. Parker, Farrington	C. N. Howe, Aitkin.	F. M. Hesler, Morris.
200	Grains, not less than five varieties	180	195	180	190	170	170	140	165
200	Grains in sheaf, not less than five varieties	185	190	160	180	130	100	175	180
100	Native grass	80	95	100	85	85	90	70	70
100	Tame grass	90	95	90	85	80	80	85	80
100	Rape, sorghum and other forage plants	100	95	95	65	90	75	90	95
100	Potatoes, not less than ten varieties	100	90	95	95	90	95	60	40
100	Stock vegetables and peas	95	55	75	90	65	70	85	85
100	Culinary vegetables	90	95	90	75	90	90	85	70
100	Fruits	90	90	75	80	90	95	70	70
100	Miscellaneous	....	....	....	....	....	....	....	....
100	Greatest number of varieties	85	90	100	85	90	95	85	70
100	Design and taste in arrangement	85	75	50	60	70	70	75	60
	Total percentage	1,180	1,165	1,110	1,090	1,050	1,030	1,020	985
	Money awarded	$13.70	$13.55	$12.80	$12.65	....	....	....	....
	Premiums, special	12.00	8.00	5.00	....	$12.20	$11.90	$11.75	$11.45
	Total award	$25.70	$21.55	$17.80	$12.65	$12.20	$11.90	$11.75	$11.45
	Grade	1	2	3	4	5	6	7	8

DIVISION K—WOMAN'S DEPARTMENT.

Premiums awarded.. $455.00.

Superintendent—B. F. Nelson, Minneapolis.

Assistant Superintendent—Mrs. M. L. Luther, Minneapolis.

Judging Committee—Mrs. G. W. Dodds, Mate Emma Dodds, Mrs. C. G. Titcomb, Miss Owens, Ida M. Martin, Mrs. N. H. Mosher, Mrs. C. L. Jones, Henriette Barclay Paist, Mrs. Herbert Paist, Mrs. Margaret J. Blair.

Class 73.

	1st Prem.	2d Prem.	3d Prem.
Apron, fancy—			
Cora Christenson, Minneapolis	$2.00		
Mrs. M. Fegle, Minneapolis		$1.00	
Buttonholes, made in twelve different materials—			
E. R. Staehle, St. Paul	1.50		
Mrs. L. M. Scharff, Hamline		1.00	
Cross-stitch, best specimen—			
Mrs. J. Ringstad, Minneapolis	2.00		
Crocheted umbrella shawl—			
Gretchen Mitsch, St. Paul	2.00		
Mrs. Jos. Butler, St. Paul		1.00	
Knitted shawl—			
Mrs. F. M. Cady, St. Paul	2.00		
Mrs. J. E. Reilly, St. Paul		1.00	
Crocheted Fascinator—			
Gretchen Mitsch, St. Paul	2.00		
Mrs. Jos. Butler, St. Paul		1.00	
Crocheted purse with beads—			
Gretchen Mitsch, St. Paul	2.00		
Mrs. Jos. Butler, St. Paul		1.00	
Crocheted chatelaine with beads—			
Mrs. Christine Abel, St. Paul	3.00		
C. Pontius, St. Paul		2.00	
Crocheting, best specimen in cotton—			
E. W. Hamilton, St. Paul	2.00		
Mrs. Christine Abel, St. Paul		1.00	
Cushion toilet—			
E. R. Staehle, St. Paul	1.00		
Mrs. M. Fegle, Minneapolis		.50	
Corset cover, hand made—			
G. E. Slocum, Minneapolis	2.00		
Mrs. M. Fegle, Minneapolis		1.00	
Darned net, best specimen—			
Mrs. S. C. Whitemarsh, Minneapolis	2.00		
Mrs. M. Fegle, Minneapolis		1.00	
Doll, best dressed, child under fifteen years—			
Mrs. W. J. Murray, St. Paul	3.00		
Drawn work, tray cloth—			
Clara Hohn, St. Paul	2.00		
Mrs. F. G. Borpes, St. Paul		1.00	
Drawn work, lunch cloth—			
Mrs. A. C. Wordby, Minneapolis	3.00		
Mrs. J. Swennes, Minneapolis		2.00	
Drawn work, doylies, one-half dozen—			
Miss Kathryn Baker, St. Paul	2.00		
Mrs. A. C. Wordby, Minneapolis		1.00	
Drawn work, or lace table cloth—			
Mrs. L. De Camp, St. Paul	3.00		
Mrs. L. De Camp, St. Paul		2.00	

	1st Prem.	2d Prem.	3d Prem.
Embroidered lunch cloth—			
C. D. Penfield, St. Paul	3.00		
Mrs. D. F. Woodcock, Minneapolis		2.00	
Embroidered tray cloth—			
Mrs. S. D. Seward, Minneapolis	2.00		
Mrs. John Grace, St. Paul		1.00	
Embroidered doylies, one-half dozen—			
K. S. Thayer, Minneapolis	2.00		
H. L. Holcomb, Minneapolis		1.00	
Embroidered center piece on linen—			
Mrs. Oldfield, Minneapolis	3.00		
Miss L. German, St. Paul		2.00	
Mrs. S. O. Seward, Minneapolis			$1.00
Embroidered center piece, in roses—			
Mrs. Otto Stein, St. Paul	3.00		
Miss J. H. Peterson, Minneapolis		2.00	
Embroidery silk, not classed above—			
A. Larson, St. Paul	2.00		
Miss Jean McCool, St. Paul		1.00	
Embroidery, solid cotton—			
G. E. Slocum, Minneapolis	2.00		
Lena Synek, St. Paul		1.00	
Embroidery, solid linen—			
Virginia Brandt, Merriam Park	2.00		
Virginia Brandt, Merriam Park		1.00	
Embroidery, initial on any material—			
Mrs. Christine Abel, St. Paul	2.00		
J. Ragstadt, Minneapolis		1.00	
Embroidered bureau set—			
Mrs. Jacob Berrum, South Park	2.00		
Anna Friedberger, St. Paul		1.00	
Embroidery by old lady over sixty years—			
C. D. Penfield, St. Paul	3.00		
R. A. Cass, Minneapolis		2.00	
S. P. Thayer, Minneapolis			1.00
Embroidery by girl under fifteen years—			
G. A. Ebel, Minneapolis	2.00		
Jessie Dillery, St. Paul		1.00	
Amy Peterson, Minneapolis			.50
Handkerchief, point lace—			
F. Schroeder, St. Paul	3.00		
Mrs. L. Farrar. St. Paul			1.00
Handkerchief, Honiton lace—			
F. Schroeder, St. Paul	3.00		
J. Burch, St. Paul		2.00	
G. E. Slocum, Minneapolis			1.00
Handkerchief, fancy, hand made—			
C. Abel, St. Paul	2.00		
G. E. Slocum, Minneapolis		1.00	
Handkerchief, drawn work—			
C. Abel, St. Paul	2.00		
Kathryn Baker, St. Paul		1.00	
Hemstitching, best specimen—			
Mrs. J. A. Thompson, Minneapolis	1.00		
Maud Scharff, Hamline			.50
Infant's hood, lace—			
Mrs. F. G. Mogler, St. Paul	2.00		
Mrs. J. A. Thompson, Minneapolis		1.00	
Infant's hood, crocheted—			
Mrs. Geo. J. Mitsch, St. Paul	2.00		
Mrs. A. E. Gustafson, St. Paul		1.00	

Infant's crocheted sacque—			
Anna Mitsch, St. Paul	2.00		
K. W. Ankeny, St. Paul		1.00	
Lace, battenberg, sideboard cover—			
F. Schroeder, St. Paul	2.00		
F. G. Borpes, St. Paul		1.00	
Lace, battenberg, centerpiece—			
Elisa Swanson, St. Paul	3.00		
F. Schroeder, St. Paul		2.00	
J. A. Schmitz, St. Paul			1.00
Lace, battenberg, dresser cover—			
Mrs. H. C. Scherfenberg, St. Paul	2.00		
Mrs. F. B. Miller, Minneapolis		1.00	
Lace, hand-made curtains—			
Mrs. Chas. Donnelly, Minneapolis	3.00		
Mrs. P. M. Hendrick, St. Paul		2.00	
Lace, battenberg, lunch cloth—			
Mrs. John Drummond, St. Paul	3.00		
Otto Stein, St. Paul		2.00	
Emma Neff, St. Paul			1.00
Lace, battenberg, one-half dozen doylies—			
Mrs. Otto Stein, St. Paul	2.00		
Mrs. E. P. Smith, Minneapolis		1.00	
Lace, made with duchess braid—			
Kathryn Baker, St. Paul	3.00		
Mrs. Oldfield, Minneapolis		2.00	
Lace, point, best specimen—			
C. Prouse, Minneapolis	2.00		
Mrs. L. T. Austin, St. Paul		1.00	
Lace, honiton, best specimen—			
Mrs. Oldfield, Minneapolis	2.00		
Lace, best specimen, by lady over sixty years—			
Ellen Homes, St. Paul	2.00		
Mrs. D. F. Woodcock, Minneapolis		1.00	
Mittens, silk knitted—			
Mrs. B. Beveridge, St. Paul	2.00		
Helga Angelstad, St. Paul		1.00	
Mittens, wool, knitted—			
Anna Mitsch, St. Paul	2.00		
Mrs. J. E. Gray, Minneapolis		1.00	
Needlework, by lady over sixty years, other than embroidery—			
Mrs. F. Dunham, Minneapolis	2.00		
Mary Schonarth, St. Paul		1.00	
Needlework, by boy or girl under fifteen, other than embroidery—			
Mabel Walters, Minneapolis	2.00		
Mary Blodgett, St. Paul		1.00	
Netting, best specimen—			
Lizzie Bork, St. Paul	2.00		
Mrs. J. E. Malone, Owatonna		1.00	
Patching, best specimen, on old garments—			
J. Ringstad, Minneapolis	2.00		
Pillow, sofa, embroidered—			
Isabel Hendricks, Minneapolis	3.00		
Anna Gunderson, Minneapolis		2.00	
Jean McCool, St. Paul			1.00
Pillow, sofa, fancy—			
Anna Gunderson, Minneapolis	3.00		
Mrs. R. A. Cass, Minneapolis		2.00	
Mrs. J. J. Cassell, Minneapolis			1.00

Pillow, Persian embroidery—			
Mrs. Jacob Berrum, St. Paul	3.00		
Miss G. E. Slocum, Minneapolis		2.00	
Pillow, infant's, fancy—			
Mrs. M. Flegle, Minneapolis	2.00		
Theresa Karner, St. Paul		1.00	
Quilt, crazy, silk—			
Mrs. H. W. Black, Minneapolis	3.00		
Emily Jagger, St. Paul		1.50	
Quilt, log cabin, silk—			
J. W. Workings, Minneapolis	3.00		
C. Carlson, Minneapolis		1.50	
Quilt, log cabin, wool—			
Maud Berry, Minneapolis	3.00		
Quilt, block, silk—			
M. Hoff, St. Paul	3.00		
Mrs. M. D. Day, Minneapolis		1.50	
Quilt, block, wool—			
Clara Geisman, Merriam Park	3.00		
Miss F. Heinline, St. Paul		1.50	
Quilt, patch work, cotton—			
Mrs. Geo. D. Merritt, Minneapolis	2.00		
Mrs. Geo. D. Merritt, Minneapolis		1.00	
Quilt, silk, made by lady over sixty years of age—			
C. W. Warner, Minneapolis	3.00		
Jessie Robinson, Minneapolis		2.00	
Mrs. M. C. Dawson, St. Paul			1.00
Quilt, patchwork, cotton, by lady over sixty years—			
Mrs. M. C. Dawson, St. Paul	2.00		
Mrs. Wm. Bordner, Minneapolis		1.00	
Rug, made by hand, drawn—			
Mrs. J. R. Cummins, Merriam Park	2.00		
Mrs. S. D. Seward, Minneapolis		1.00	
Rug, hand made, knitted—			
Anna Friedberger, St. Paul	2.00		
Sewing by hand, different stitches—			
Maud Scharff, Hamline	3.00		
Annie Matchett, St. Paul		1.50	
Sham, pillow, fancy—			
A. C. Wordby, Minneapolis	2.00		
P. J. Heck, St. Paul		1.00	
Skirt, knitted—			
J. A. Schmitz, St. Paul	2.00		
Mrs. A. W. Sonnen, St. Paul		1.00	
Skirt, crocheted—			
C. Pontius, St. Paul	2.00		
Slippers, knitted—			
J. E. Gray, Minneapolis	2.00		
Mrs. A. E. Wansey, St. Paul		1.00	
Slippers, crocheted—			
K. W. Ankeny, Minneapolis	2.00		
Clara Hohn, Minneapolis		1.00	
Socks, men's, knitted—			
Harriet Wicks, St. Paul	2.00		
Mrs. Roberts, St. Paul		1.00	
Stockings, ladies', wool, knitted—			
Mrs. A. W. Sonnen, St. Paul	2.00		
Harriet Wicks, St. Paul		1.00	
Stockings, ladies', silk, knitted—			
A. H. Baldwin, Minneapolis	2.00		

	1st Prem.	2d Prem.	3d Prem.
Spread, knitted—			
Mrs. M. Erald, Minneapolis	3.00		
Mrs. R. Krause, Rose Town		2.00	
Spread, crocheted—			
E. Nelson, Crow River	3.00		
Mrs. G. Gjertsen, Minneapolis		2.00	
Articles of fancy work, not enumerated above—			
Mrs. H. C. Kahn, St. Paul	3.00		
Margaret Cunningham, Minneapolis		2.00	
Helga Anglestad, Minneapolis			1.00
Hand-painted china, best collection, by one person—			
Mrs. W. H. Fuller, Minneapolis	10.00		
Minnie Robertson, St. Paul		8.00	
Mrs. E. F. Woodcock, Minneapolis			5.00
Hand-painted china, cream pitcher and sugar bowl—			
Minnie Robertson, St. Paul	3.00		
E. S. Wilson, Minneapolis		2.00	
Hand-painted china, jardiniere—			
Nettie A. Pratt, Minneapolis	4.00		
Minnie Robertson, St. Paul		3.00	
Hand-painted china, cup and saucer—			
Mrs. E. F. Woodcock, Minneapolis	2.00		
Minnie Robertson, St. Paul		1.00	
Hand-painted china, plate—			
Mrs. E. F. Woodcock, Minneapolis	2.00		
Minnie Robertson, St. Paul		1.00	
Hand-painted china, vase—			
Mrs. C. J. Thompson, St. Paul	4.00		
Mrs. W. H. Fuller, Minneapolis		3.00	
Hand-painted china, other articles not named—			
Mrs. A. C. Keith, St. Paul	3.00		
Nettie Pratt, Minneapolis		2.00	
Hand-painted china, chop plate—			
Minnie Robertson, St. Paul	3.00		
Mrs. W. H. Fuller, Minneapolis		2.00	
Hand-painted salad bowl—			
Mrs. W. H. Fuller, Minneapolis	4.00		
E. F. Woodcock, Minneapolis		3.00	
Hand-painted figure or head—			
Mrs. A. D. Williamson, Minneapolis	4.00		
Mrs. W. H. Fuller, Minneapolis		3.00	
Painting on tapestry—			
G. A. Staack, Minneapolis	4.00		
D. R. Howell, Minneapolis		3.00	
M. Terfehr, Minneapolis			2.00

Class 74.

Bread, Boston Brown, loaf—			
Mrs. J. Johnston, Hamline	$2.00		
Mrs. F. A. Bedell, Merriam Park		$1.00	
Bread, graham, loaf—			
Mrs. J. P. Armitage, St. Paul	2.00		
Bread, white, loaf—			
Jessie Sweezey, St. Paul	2.00		
Mrs. J. P. Armitage, St. Paul		1.00	
Whole wheat bread, loaf—			
Jessie Sweezey, St. Paul	2.00		
Mrs. J. P. Armitage, St. Paul		1.00	
Bread, French—			
Mrs. M. Flegle, Minneapolis	2.00		

Cake, chocolate—			
Mrs. Fred Heinlein, St. Paul	2.00		
Mrs. M. Flegle, Minneapolis		1.00	
Cake, cocoanut—			
J. G. Johnston, Hamline	2.00		
Annie Herald, Merriam Park		1.00	
Cake, angel—			
Mrs. W. A. Alden, Minneapolis	2.00		
Mrs. F. A. Bedell, Merriam Park		1.00	
Cake, fruit—			
Mrs. E. C. Walters, St. Paul	2.00		
Cake, gold—			
Mrs. M. Flegle, Minneapolis	2.00		
Cake, sponge—			
Mrs. Fred Heinlein, St. Paul	2.00		
E. W. Taylor, White Bear		1.00	
Cake, marble—			
J. G. Johnston, Hamline	2.00		
Mrs. W. A. Alden, Minneapolis		1.00	
Cake, nut—			
Mrs. Fred Heinlein, St. Paul		1.00	
Cookies, white—			
Emma Lind, Houston	2.00		
Mrs. A. Fjernlund, St. Paul		1.00	
Cookies, molasses—			
Kathrine McGaughey, St. Paul	2.00		
Emma Lind, Houston		1.00	
Gems, Graham—			
H. C. Scherfenburg, St. Paul		1.00	
Rolls, French, one dozen—			
Mrs. P. O'Grady, St. Paul		1.00	
Rolls, breakfast, one dozen—			
Mrs. J. P. Armitage, St. Paul	2.00		
Augusta Eck, St. Anthony Park		1.00	
Blackberries, one pint—			
Mrs. E. C. Walters, Minneapolis		1.00	
Mrs. J. G. Johnston, Hamline			$0.50
Blueberries, one pint—			
Maud Busse, Merriam Park	1.00		
Mrs. E. C. Walters, Minneapolis		.50	
Currents, red or white, one or two pints—			
Mary Moser, St. Louis Park		.50	
Gooseberries, one pint—			
Maud Busse, Merriam Park	1.00		
Mrs. E. C. Walters, Minneapolis		.50	
Grapes, collection, not to exceed three pints—			
Mary Moeser, St. Louis Park		.50	
Plums, collection, not to exceed three pints—			
Mrs. J. G. Johnston, Hamline	1.00		
Mary Moeser, St. Louis Park		.50	
Pears, one pint—			
Mrs. E. C. Walters, Minneapolis	1.00		
J. G. Johnston, Hamline		.50	
Raspberries, one or two pints—			
C. Redpath, Wayzata	1.00		
Mrs. Geo. A. Kelley, Minneapolis		.50	
Strawberries, one quart—			
F. F. Farrow, White Bear	1.00		
Mrs. John Grace, St. Paul		.50	

Jam, blackberry—		
Mary Moeser, St. Louis Park	1.00	
Mrs. J. G. Johnston, Hamline		.50
Jam, currant—		
Mrs. E. C. Walters, Minneapolis	1.00	
Mary Moeser, St. Louis Park		.50
Jam, gooseberry—		
Mrs. E. C. Walters, Minneapolis	1.00	
Mary Moeser, St. Louis Park		.50
Jam, raspberry—		
Mrs. E. C. Walters, Minneapolis	1.00	
Mrs. S. P. Hoyt, St. Paul		.50
Jam, strawberry—		
Mrs. E. C. Walters, Minneapolis	1.00	
Mary Moeser, St. Louis Park		.50
Jelly, crabapple, half-pint glass—		
Mrs. F. Heinlein, St. Paul	1.00	
Mrs. S. R. Spates, Wayzata		.50
Jelly, blackberry, one-half pint glass—		
Mrs. M. Flegle, Minneapolis	1.00	
Mrs. J. G. Johnstson, Hamline		.50
Jelly, currant, red, one-half pint glass—		
Mrs. E. C. Walters, Minneapolis	1.00	
Mrs. F. Heinlein, St. Paul		.50
Jelly, grape, red, one-half pint glass—		
Mrs. F. E. Hansen, Minneapolis	1.00	
Jelly, gooseberry, one-half pint glass—		
Maud Busse, Merriam Park	1.00	
Jelly, ground cherry, one-half pint glass—		
Maud Busse, Merriam Park	1.00	
Mrs. J. A. Thompson, Minneapolis		.50
Jelly, plum, one-half pint glass—		
S. R. Spates, Wayzata	1.00	
Maud Busse, Merriam Park		.50
Jelly, raspberry, one-half pint glass—		
Mrs. S. R. Spates, Wayzata	1.00	
Mary Moeser, St. Louis Park		.50

PICKLES, ETC.

Chili sauce—		
Mary Moeser, St. Louis Park	1.00	
Pickles, cabbage, one quart—		
August Dahns, St. Paul	1.00	
Mary Moeser, St. Louis Park		.50
Pickles, cucumber, one quart—		
Mary Moeser, St. Louis Park	1.00	
Mabel Lasell, St. Paul		.50
Pickles, crabapple, sweet, one quart—		
S. R. Spates, Wayzata	1.00	
Mary Moeser, St. Louis Park		.50
Pickles, mixed, one quart—		
S. R. Spates, Wayzata	1.00	
Mary Moeser, St. Louis Park		.50
Pickles, onion, one quart—		
Mrs. J. G. Johnston, Hamline	1.00	
Mary Moeser, St. Louis Park		.50
Pickles, peach, sweet, one quart—		
Mary Moeser, St. Louis Park	1.00	
August Dahma, St. Paul		.50
Pickles, tomato, one quart—		
Mary Moeser, St. Louis Park	1.00	

	1st Prem.	2d Prem.
Pickles, watermelon, one quart—		
Mrs. M. Flegle, Minneapolis	1.00	
H. C. Scherfenberg, St. Paul		.50
Piccalilli, one quart—		
Mrs. H. W. Facklan, Minneapolis	1.00	
Mary Moeser, St. Louis Park		.50
Spiced currants, one quart—		
Mrs. M. Flegle, Minneapolis	1.00	
Maud Busse, Merriam Park		.50
Spiced plums, one quart—		
Mary Moeser, St. Louis Park	1.00	

REPORT OF THE SUPERINTENDENT OF THE EXPOSITION BUILDING.

B. F. Nelson, Superintendent.
J. W. Smith, Assistant Superintendent.

To the Honorable Members of the Board of Managers of the Minnesota State Agricultural Society:

It is with great satisfaction that I am able to report a most successful exhibition in this department, notwithstanding that we were very much crowded for room. After building a large number of booths outside of the exposition building we were still unable to accommodate all that applied for space.

The east wing of the building was devoted to the exhibit of the game and fish commissioner. The report made by Mr. Fullerton, executive agent, shows it was an exhibit of unusual interest.

The music in the band stand under the dome of the building furnished by the Ladies' Orchestra throughout the fair added much to the life of the building, and altogether was very satisfactory.

The band stand was tastefully and beautifully decorated by L. L. May & Co. with their exhibit of plants and flowers.

The booths in the north, south and west wings of the building were occupied by merchants and manufacturers of Minneapolis and St. Paul.

Much care was exercised in the arrangements of the exhibits and the aggregate effect was very satisfactory.

The building was crowded with people from the beginning of the fair to its close, showing great interest in this department.

It is to be hoped that the building will be remodeled or rebuilt in the near future so as to accommodate a large number of our merchants who were unable to get space this year.

The following is a list of the exhibitors:

Great Western Cycle Co., cycle goods, Minneapolis.
St. Paul Cycle Co., cycle goods, St. Paul.
Bishop & Babcock Co., bottling works supplies, St. Paul.
Blickensderfer Co., typewriters, Minneapolis.
Dobbs Bros., millinery and dress charts, Minneapolis.
International Correspondence School, Minneapolis.
Andersch Bros.. furs and wool, Minneapolis.
A. H. Opsahl, photographs, Minneapolis.
May's Seed Co., seeds and flowers, St. Paul.
Powers Dry Goods Co., fancy goods, Minneapolis.
State Game and Fish Commission, game and fish exhibit, St. Paul.
Cribben & Sexton, stoves and ranges, Minneapolis.
H. Carling, portraits, St. Paul.
Cree-Dickinson Co., sectional book cases, Minneapolis.

Minneapolis Furniture Co., kitchen cabinets, Minneapolis.
W. M. McVeigh, carpets and rugs, Minneapolis.
Walker Carpet Works, rugs and upholstered goods, Minneapolis.
Sharood Shoe Co., shoes, St. Paul.
N. W. Parquet Floor Co., hardware flooring, Minneapolis.
L. D. DeMars, artificial flowers and palms, Minneapolis.
Wm. Donaldson & Co., fancy dry goods, Minneapolis.
Lennon Clothing Co., clothing, St. Paul.
Kohn Bros. Co., clothing, Chicago.
Twin City Telephone Co., telephone exchange, Minneapolis.
N. W. Hide & Fur Co., furs, Minneapolis.
Halwood Cash Register Co., cash registers, Minneapolis and St. Paul.
Standard Sewing Machine Co., sewing machines, Minneapolis and St. Paul.
Otto Rood, stoves and ranges, Minneapolis.
White Enamel Refrigerator Co., refrigerators, St. Paul.
Gruenhagen Bros., stoves and ranges, St. Anthony Park.
N. W. Grass Twine Co., grass twine goods, St. Paul.
State School for the Blind, school work, Faribault.
State Hospitals for the Insane, three exhibits.
Metropolitan Music Co., musical instruments, Minneapolis.
Dyer Bros., musical instruments, St. Paul.
Mrs. L. E. Hill, manufacturing ladies' corsets, Minneapolis.
Schuneman & Evans, fancy dry goods, St. Paul.
Mannheimer Bros., fancy dry goods, St. Paul.
Palace Clothing Co., clothing, etc., Minneapolis.
American Desk Co., office desks and chairs, Minneapolis.
National Piano Co., pianos, Minneapolis.
Minneapolis Dye Works, fancy goods, Minneapolis.
W. J. Hurket, fancy pleating and waists, Minneapolis.
Northrup, King & Co., seeds and vegetables, Minneapolis.
Towle Syrup Co., syrups, St. Paul and Minneapolis.
Fife Supply Co., sewing machines and fancy articles, Minneapolis.
Albrecht & Son, furs, St. Paul.
North Star Woolen Mills, blankets, Minneapolis.
National Cash Register, cash registers, Minneapolis.
Standard Adding Machine Co., adding machines, Minneapolis.
Wagner Cycle Co., cycle goods.
American Soap & Chemical Co.
Hauser Duck & Shade Co., Minneapolis.
Palace Clothing Co., clothing, St. Paul.
Standard Oil Co., oil, Minneapolis.
George & Hotchkins.
Minnesota Macaroni Co.
A. Booth & Co., salad dressings, etc., St. Paul.
Empire Cloak & Fur Co., cloaks and furs, St. Paul.
Moorish Rug Co., carpets and rugs.
A. F. Stewart, brushes and brooms.
Plant Rubber Co.
W. A. Reynolds, steam cookers.
Nelson Bros., knitting works.
Geo. C. Webb, typewriters, Minneapolis.
Faultless Manufacturing Co., stoves and ranges.
J. B. & C. T. Moffett, paints, Minneapolis.
J. H. Heisser, aluminum goods, Minneapolis.
St. Paul Rug Co., rugs and carpets, St. Paul.
Fisher Paper Box Co., paper boxes and tubes, etc., St. Paul.
The Lamb Lumber Co, St. Paul.
W. L. Perkins & Co., St. Paul.
Twin City Fence & Wire Works, wire fencing, etc., St. Paul.
The Heath-Quinby Co., brass and metal goods, Minneapolis.
Holtzeman Chicago Store, Chicago, Ill.

Fruen Cereal Co., cereals, Minneapolis.
Peterson Granite Co., marble and granite.
Snowflake Baking Powder Co.
Haynes Cycle Co., cycle goods.
Economy Gas Lamp Co., gas lamps, etc., Minneapolis.

REPORT OF THE SUPERINTENDENT OF MACHINERY.

Clarksville, Mo., Sept. 22, 1902.

State Board of Agriculture, Hamline, Minn.,

GENTLEMEN: In handing you my report of the exhibition of machinery at the last state fair I wish to call your attention to some matters that seem to require your serious attention.

From the complete plats left with you it is easy to see that a very large portion of the immense exhibit was held in tents, and still more without any shelter whatever, which indicates the urgent need of more space for the display of this important part of the fair.

I recommend that in future all wind mills be shown either so the lowest portion of the wheel be at least eight feet above the ground, or that they be enclosed by some sort of a fence or guard to keep spectators from getting caught in them when being revolved rapidly with a strong breeze. One woman was so caught last fair week and had her clothes badly torn and narrowly escaped serious injury by the aid of people who saw the accident just in time.

In the past it has been customary for exhibitors to ask for the spaces they have had before, and the assignments have been made, without question, by myself and predecessors, and until last fair no serious consequences have followed this practice, but last fair it did prove unfortunate, as some exhibitors had much more than their fair share of the room, while others had much less or none at all.

I recommend that no assignments be made in future solely on the ground that said exhibitor has had the same space before.

To illustrate, the Standard Co., making mowers, have always had five spaces and insisted on keeping that many, and, as assignment had been made, it was difficult to take any away, while they might easily have condensed all their exhibit in three spaces and then had twice or three times as much room as some other concerns making a larger line than they.

I wish to make especial mention of the exhibit made by the Waterous Engine Co., of St. Paul.

In years gone by they have always shown, and also furnished the society with the only or most of the fire protection that they had, and this season a matter came up that led them to feel that the society did not feel kindly toward them. I refer to the fact that they had the same men in charge of their goods that were there last season, and I had trouble with them both years by reason of their being given to sprinkling water on the crowd every little while and seeming to enjoy seeing the people squirm.

I labored with them till patience ceased to be a virtue, and then had the two offending parties arrested and fined $28 each, which included the costs. I also served notice on them that they would not be allowed to exhibit squirting machinery any more on the grounds of the association, and I recommend that this be borne in mind and the Waterous Co. be requested to procure other men to take charge of their goods at the fair. The men's names were Gibson and Smith. Do not recall their initials, but can get them from the justice's books, or from the Waterous Co.

I went over the matter fully with the managers of the company, assuring them that it was nothing for which we blamed them in the least, and that we would be as glad to see them next year and all other years as we had been when we depended on them for protection.

Another feature of the deal with them is that they actually need some place to make their exhibit where they can turn a hose and throw water in some one direction and not annoy any one, and their present location was selected by them on account of its being so situated, but the department has grown so much that other exhibitors have crowded onto them from all sides so they are seriously handicapped, and I recommend that the matter be taken up with them at a very early date with a view to furnishing them with a location better suited to their requirements.

Again referring to the plats, will say that a study of them will at once make apparent to any one that cares to investigate the fact that more room is imperatively needed, and the only way to secure it seems to be to open the street directly north of the threshing machine exhibit, and eventually all of the implement department will be located thereon, and it will be the most desirable location for firms wishing to put up their own buildings, and that would seem to point to the top of the hill as the most desirable location for a suitable machinery hall.

I do not need to dwell upon the great need of such a building, as a perusal of the plats will show that much more than half our display was out of doors, and any one attending the last fair will not be apt to soon forget the cramped condition of all buildings used by this department. If I can serve you farther in any manner kindly consider that I am yours to command.

Very truly and most respectfully yours,
W. G. SAWYER.

A list of exhibits follows:

Louden Machinery Co., Minneapolis—Hay tools.
Collins Plow Co., Minneapolis—Farm machinery.
Robert Bates, Winona, Minn.—Iron and wood working machinery.
A. Patch & Sons, Minneapolis, Minn.—Ladders.
Olson & Becker, St. Paul—Washing machines.
Henry Breshoffer, St. Paul—Barrel carts.
Thompson & Ege, St. Paul—Carriages.
Parry Manufacturing Co., Minneapolis—Vehicles.
Thomas Manufacturing Co., Minneapolis—Farm machinery.
Twin City Separator Co., Minneapolis—Fanning mills.
Kinnard-Haines Co., Minneapolis—Engines and hay presses.
Fountain City Drill Co., Minneapolis—Drills and seeders.
Woodmans Manufacturing Co., Minneapolis—Windmills.
Marion Manufacturing Co., Marion, Ohio—Threshers.
Parsons, Rich & Co., Minneapolis—Self feeders.
Emerson Manufacturing Co., Minneapolis—Machinery.
Foster Implement Co., Zanesville, Ohio—Machinery.
Kenyon-Rosing Machine Co., Minneapolis—Machinery.
Sandwish Manufacturing Co., Sandwish, Ill.
Minneapolis Implement Co., Minneapolis—Portable grain elevator.
La Crosse Implement Co., Minneapolis—Vehicles and implements.
South Bend Plow Co., South Bend, Ind.—Plows.
Reeves & Co., Minneapolis—Threshers.
Ruffer-Hubbard Manufacturing Co., Minneapolis.
Kansas City Hay Press Co., Minneapolis—Hay presses.
Taylor & Hough, St. Paul—Machinery.
American Steel & Wire Co., Chicago, Ill.—Fencing.
The Ohio Cultivator Co., Minneapolis—Cultivators.
Geo. F. Thompson, Minneapolis—Vehicles.
Marshall-Wells Hardware Co., Duluth—Carriages.
Enterprise Machine Co., Minneapolis—Machinery.
C. A. Stickney & Co., St. Paul.
Grand De Tour Plow Co., Minneapolis—Plows.
Deere-Webber Co., Minneapolis—Implements, farm machinery.
Moon Bros, St. Louis, Mo.—Vehicles.
Racine Wagon & Carriage Co., Racine, Wis.—Vehicles.
U. S. Wing Engine & Pump Co., Batavia, Ill.

Riddle Coach & Hearse Co., Ravenna, Ohio—Hearses.
Wood Bors, Des Moines, Iowa—Self feeders.
Smith & Zimmer, Minneapolis—Farm implements.
Clark Carriage Co., Minneapolis—Vehicles.
Monitor Manufacturing Co., Minneapolis—Seeders and drills.
Winona Wagon Co., Winona—Wagons.
Demster Manufacturing Co., Minneapolis.
U. S. Roofing & Paint Co.
Austin & Western Limited Co., Chicago, Ill.—Road machinery.
American Grass Twine Co., St. Paul.
Northwestern Wing Engine Co., Minneapolis.
J. I. Case Thresher Co., Minneapolis—Threshing machines.
American Thresher Co., Madison, Wis.—Threshers.
Milwaukee Corn Husker Co., Milwaukee, Wis.—Corn huskers.
Rock Island Plow Co., Minneapolis—Farm implements.
Columbus Buggy Co., Minneapolis—Vehicles.
Janesville Machine Co., Minneapolis.
The Van Brunt Manufacturing Co., Minneapolis—Seeders and drills.
Challenge Windmill Co., Minneapolis—Windmills.
Satterlee-Greenfield Co., Minneapolis.
Appleton Manufacturing Co., Minneapolis.
Sayre Gas Machine Co., Minneapolis.
Kays Well Drilling Machine Co., St. Paul.
Owatonna Manufacturing Co., Owatonna.
E. J. Hicks, Minneapolis—Cream separators.
R. R. Howell & Co., Minneapolis—Farm machinery.
A. W. Stevens Co., Marietta, Wis.
Bennett & Darling Co., Minneapolis—Drills.
Karst & Breher, St. Paul.
Law Manufacturing Co., Merriam Park.
Pella Stacker Co., Pella, Iowa—Stackers.
Valentine Bros., Minneapolis.
Minnesota Fence Machine Co., Minneapolis—Fence machinery.
Crane & Ordway, St. Paul—Pipe, hardware.
The Stove Engine Works, Freeport, Ill.
Christner & Hill, De Witt, Neb.
Henny Buggy Co., Minneapolis—Vehicles.
Clelland & Co., Minneapolis.
R. S. Carward, Cresco, Iowa.
C. D. Holbrook & Co., Minneapolis.
Sapler Wire Stretcher Co., Minneapolis—Wire stretcher.
The Bucher-Gibbs Plow Co., Minneapolis—Plows.
Geiser Manufacturing Co., Minneapolis.
L. B. Loye & Sons, Minneapolis.
Chicago Scale Co., Chicago, Ill.—Scales.
Lenhart Wagon Co., Minneapolis—Vehicles.
Stoughton Wagon Co., Minneapolis—Vehicles.
Adland Storage Co., Minneapolis.
Morrison Manufacturing Co., Minneapolis.
J. L. Owens & Co., Minneapolis.
J. Thompson & Son Manufacturing Co., Beloit, Wis.
Cyclone Woven Wire Fence Co.
Harper Manufacturing Co., Marshalltown, Iowa.
Magner Ortenblade, Grassingen, Minn.—Potato bug exterminator.
Dowagiac Manufacturing Co., Minneapolis—Drills.
Rosenthal Husker Co., Milwaukee, Wis.—Huskers.
North Western Manufacturing Co., Minneapolis.
Waterbury Implement Co., Minneapolis.
Keller Manufacturing Co., Sauk Center—Buggies.
Jennings Implement Co., St. Paul—Farm machinery.
Sturtevant-Larribee Co., Binghamton, N. Y.—Vehicles.
Porrier Manufacturing Co., Gladstone, Minn.

Acme Harvester Co., Minneapolis.
Banner Wagon Co., Merriam Park—Vehicles.
Selby, Starr & Co., Peoria, Ill.—Drills.
Heine Manufacturing Co., Wahpeton, N. D.
St. Cloud Crushed Granite Co., St. Cloud.
Muckle Manufacturing Co., Merriam Park—Carriages.
Drewry & Sons, St. Paul.
American Weigher Co., Racine, Wis.
Swensen & Grubber Co., Cresco, Iowa.
Waterous Engine Works, St. Paul.
Kitselman Bros., Munch, Ind.
Waterloo Carriage Co., Waterloo, Iowa—Vehicles.
Burdine, Macy & Co., St. Paul—Weather strips.
Globe Iron Works, Minneapolis.
Hart-Parr Co., Charles City, Iowa.
Beeman & Co., Minneapolis.
G. W. Froelich, Merriam Park—Washing machines.
Northwest Thresher Co., Stillwater.
American Tent & Awning Co., Minneapolis—Tents, etc.
J. L. Ware & Co., St. Paul.
Wagner & Horte, Hinckley, Ill.
Waterloo Gas Engine Co., Waterloo, Iowa.
G. A. Olson, Albert Lea, Minn.
Hopgood Plow Co., Alton, Ill.—Plows.
Twin City Washing Machine Co., Minneapolis—Washing machines.
Cram Boiler Cleaner Co., Albert Lea, Minn.
Force Feed Lublicating Co., Milwaukee, Wis.
Bradley-Clark Co., Minneapolis.
Pierce & Huskenbecker, Seneca, Minn.
L. B. Baker Manufacturing Co., Racine, Wis.—Vehicles.
J. W. Hannegan, Glenwood, Wis.—Stump puller.
Heinty Bros., Menomonie, Wis.—Sleighs.
Robinson-Miller Co., Minneapolis.
Bell City Manufacturing Co., Racine, Wis.
Sprague Umbrella Co., Norwalk, Ohio.
Iowa Gate Co., Cedar Falls, Iowa.
The Bishop-Babcock Co., St. Paul.
Iowa Grinder & Steamer Works, Waterloo, Iowa.
Studebaker Wagon Co., Minneapolis.
Mason Lubricator Co., Madison, Wis.,
Fuller & Johnson, Minneapolis.
James Egan Chimney Top, Minneapolis.
Battendorf-Axel Co., Davenport, Iowa.
La Crosse Thresher Co., La Crosse, Wis.

REPORT OF SUPERINTENDENT OF PRIVILEGES.

Lyman D. Baird, Superintendent.

RECEIPTS FROM PRIVILEGES.

Platted Spaces.

Description.	Purchaser.	Used For.	Receipt.
Booth A	Mrs. Geo. Maddock	Refreshment	$50.00
Booth B	Mrs. W. H. Wittey	General stand	50.00
Booth C	Mrs. V. P. Reed	General stand	44.00
Booth D	Frank Palumbo	General stand	20.00
Booth E	Geo. W. Champlain	Eating	81.00
Booth F	James Kirk	Lunch	25.00
Booth G	G. S. Wilson	General stand	48.00
Booth H	Mrs. H. H. Voohees	Lunch	60.00
Booths I and J	Mrs. R. Ursella	General stand	90.00
Booths K and L	Fred Snow	Fruit	165.00

Description. Purchaser.	Used For.	Receipt.
Booth M—M. C. Bronkella	Lunch	69.00
Booth N—J. M. Heller	General stand	40.00
Booth O—Woodland Park Baptist Church	Lunch	38.00
Booth P—Bethlehem Presbyterian Church	Lunch	37.00
Booth Q—C. Wilky	Lunch	56.00
Booth R—R. J. Hill	General stand	60.00
Booth S—M. Rudd	Lunch	50.00
Booth T—M. M. McCabe	General stand	46.00
Booth U—R. J. Hill	Refreshment	45.00
Booth V—R. J. Hill	Refreshment	45.00
Booth W—T. W. Nelson	Cigars, etc	165.00
Booth X—Lincoln Lodge, I. O. G. T.	Lunch	78.00
Booth Y—H. P. Conrad	General stand	81.00
Booth Z—V. Rossi	Fruit	76.00
Booth &c—M. Julian	General stand	90.00
Lot A—A. A. Desersen	Lunch	48.50
Lot B—James M. Lane	General stand	50.00
Lot C—V. C. Ziereth	General stand	72.00
Lot D—V. C. Ziereth	General stand	20.00
Lot E—W. F. Roberts	General stand	80.00
Lot F—C. H. Pauly	General stand	102.00
Lots G and H—Company B, 1st Regiment	Dining	220.00
Lot I—F. A. Gahring	Dining	125.00
Lot J—Mrs. F. Kelly	Dining	125.00
Lot K—M. L. Woodworth	Lunch	61.00
Lot L—M. D. Woodworth	Lunch	92.00
Lot M—Franklin Av. Pres. Church	Lunch	90.00
Lot N—Mrs. C. Burk	Lunch	50.00
Lot Q—38th St. Congregational Church	Dining	202.00
Lot R—Bethel Lutheran Church	Dining	100.00
Block 1.—		
Lot 1—C. F. Wood	Dining	125.00
Lot 2—St. Peter's Lutheran Church	Dining	125.00
Lot 3—Simpson M. E. Church	Dining	125.00
Lot 4—E. H. Cressy	Dining	125.00
Block 2.—		
Lots 1 and 2—Maple Leaf Dairy	Dining	420.00
Lot 3—Mrs. L. E. Sewell	Dining	235.00
Lot 4—Perry & Paine	Dining	50.00
Lot 5—T. M. Foster	Dining	50.00
Lots 6 and 7—Forest Heights M. E. Ch.	Dining	80.00
Lot 8—Mrs H. Johnson	Dining	50.00
Lots 9 and 10—Westminster Pres. Ch.	Dining	80.00
Lot 11—J. T. Simmons	Dining	30.00
Lot 12—M. A. Brown	Dining	66.00
Lot 15—L. H. Erickson	Dining	35.00
Lot 16—M. D. Marrow	Big Horse	100.00
Lot 17—O. Thompson	Colored Singers	60.00
Lot 18—H. A. Fannce & Son	General stand	60.00
Lot 19—Dahlen & Nelson	General stand	60.00
Lot 20—G. G. Braman	Lunch	40.00
Lot 22—Geo. Hartsock	Cider	85.00
Lot 23—R. E. Miller	General stand	50.00
Lot 24—M. O. Zimon	General stand	61.00
Lot 25—Mrs. E. Oosterhout	Dining	15.00
Lots 26 and 27—W. H. Temple	Show and stand	100.00
Lot 29—M. N. Ryan	Lunch	20.00
Lot 30—M. O. Zimon	General stand	80.00
Lot 31—Mrs. Geo. Marrisette	Dining	98.00
Lot 32—W. W. Wilcox	General stand	97.00
Block 3.—		
Lot 1—W. B. Poudler	General stand	116.00
Lot 2—A. Sigfried	Show	100.00
Lot 3—D. Possio	Fruit	85.00
Lots 4, 5, 6, 7 and 8—W. A. Kelley	Shows and stands	325.00
Lot 9—J. N. Scott	Stand	70.00
Lot 10—Pink & Lord	Show	65.00
Lot 11—J. Mack	Show	61.00
Lot 12—Louis Dames	General stand	65.00
Lot 13—Edward Wilson	Fortune Teller	66.00
Lot 14—Hall & Rose	Show	62.00
Lot 16—Z. Petterwaud	Show	100.00
Lots 17 and 18—W. E. Cramton	Show and lunch	140.00
Lot 19—Anna Austin	General stand	26.00
Lots 20 and 21—W. J. Nevesker	Show	75.00
Lot 22—E. J. Smith	General stand	37.50
Lot 27—J. M. Nauer	General stand	40.00
Lot 34—Mrs. Guerleus	Dining	40.00

Description. Purchaser.	Used For.	Receipt.
Block 4.—		
Lot 1—J. T. Brewer	Cider	75.00
Lot 2—J. W. Lawler	Lunch	47.00
Lot 3—Wm. McKay	Lunch	38.00
Lot 4—F. A. Young	Lunch	30.00
Lot 5—Patch & Jacobson	General stand	40.00
Lot 6—Geo. Ducket	General stand	40.00
Lot 7—L. Smith	General stand	40.00
Lot 8—M. J. Veline	General stand	40.00
Lot 10—The Provision Co	Cold storage	40.00
Block 5.—		
Lot 1—Mrs. M. M. Dean	Dining	101.00
Lot 2—Park Avenue Church	Dining	80.00
Lot 3—H. Prieb	Dining	79.00
Lots 4 and 5—Pilgrim Dining Hall	Dining	158.00
Lot 6—J. E. Dallam	Dining	76.00
Lot 7—A. W. Reeves	Dining	79.00
Lot 8—Mrs. C. M. Coe	Dining	76.00
Lot 10—Mrs. Jacob Berrum	Dining	62.00
Lot 11—Rev. D Lebahn	Dining	52.00
Lots 12, 13 and 14—Chas. Lux	Merry-go-round	168.00
Lots 15 and 16—R. J. Hill	General stand	112.00
Lot 17—Mrs. C. Peterson	General stand	40.50
Lot 18—Mrs. C. Landsworth	Dining	40.00
Lot 19—Mrs. L. Weidman	Dining	47.00
Lot 20—Chicago Av. Baptist Church	Dining	46.00
Lot 21—Fannie G. Phelps	Dining	50.00
Lot 22—L. B. Anderson	Dining	41.00
Lot 23—Mrs. James Gould	Dining	40.00
Lot 24—J. G. Walker	Dining	32.00
Lot 25—Tuttle Universalist Church	Dining	52.00
Lot 26—Mrs. E. B. Montgomery	Dining	70.00
		$8,933.50

Unplatted Spaces.

Purchaser.	Used For.	Receipt.
Christian Church	Dining	$35.00
R. A. Antinozzi	Fruit	67.00
Old Settlers' Log Cabin	Dining	125.00
Hamline M. E. Church	Dining	250.00
St. Paul Coliseum Association	Barbacue	800.00
St. Vincent Catholic Church	Dining	187.50
Merriam Park Presbyterian Church	Dining	187.50
Olivet Congregational Church	Dining	50.00
M. Julian	Balloons	25.00
Chas. E. Lundahl	General stand	30.00
Twin City Relief Corps	Dining	100.00
Hebron Baptist Church	Dining	50.00
J. G. Conderman	Ferris wheel	87.50
Mrs. Batchelder	Dining	75.00
J. T. Brewer	Cider	25.00
John E. King	Grand stand	500.00
Mrs. J. B. Cooper	Dining	75.00
Merriam Park M. E. Church	Dining	60.00
East Presbyterian Church	Dining	50.00
McKay & Daigle	General stand	33.00
Western Display Co	Signs	50.00
A. L. Lake	Dining	15.50
Russell Coffee House	Dining	50.00
J. D. Bucknell	Barber	25.00
W. J. Utley	Dining	50.00
B. J. Benson	Pop factory	25.00
Philip Goldson	Novelties	25.00
J. A. Champion	Lunch	40.00
E. G. Fladeland	Striking machine	25.00
J. M. Heath	Pop corn	25.00
Benj. Fowler	Dining	40.00
W. B. Smith	Fortune Teller	40.00
Mrs. Chas. Drake	Lunch	25.00
Tom Livingstone	General stand	20.00
Central Prohibition Club	Dining	50.00
Crescent Creamery Co	Dining	60.00
Coe Commission Co	Advertisements	75.00
Cox & Harris	Cigars	25.00
J. Drake	Lunch	25.00
Harry Martin	Show	100.00
A. M. Adams	Striking Machine	25.00

Purchaser.	Used For.	Receipt.
W. S. Jenson	Hill privilege	150.00
Ed. Ledgewood	Soft drinks	15.00
Capt. W. J. French	Show	60.00
R. F. Jones	Score card privilege	300.00
Wilke & Delerden	Merry-go-round	100.00
A. J. Murphy	Exhibition	25.00
Geo. Hartsock	Cider	25.00
Wm. Abt	Jewelery	10.00
Sherbeck's	Shows	108.95
Harry Swift Concert Co	Shows	7.75
Pony Circle		32.15
F. J. Bowlinger	Little horse, etc	7.40
Nickel & Penny Machines		47.25
Maj. Leiben	Big steer	23.20
Checking		79.50
		$4,619.20

Main Building.

Purchaser.	Used For.	Receipt.
Juergens Brothers	Jewelry	$25.00
Juergens Brothers	Jewelry	76.00
Mrs. A. E. Teel	Soft drinks	40.00
Mrs. Bertha Weyhe	Corsets	30.00
Harry E. Hardy	Novelties	25.00
M. Flynn	Novelties	30.00
Signa Sachs	Novelties	30.00
Joseph Mantel	Novelties	25.00
C. L. Crouse	Jewelry	30.00
Mrs. B. H. White	Cooking	30.00
J. L. Hidley	Jewelry	60.00
G. J. Cohn	Jewelry	25.00
Mrs. G. D. Eaton	Stand	30.00
Mrs. F. Blankhorn	Stand	30.00
F. M. Kendline	Stand	30.00
R. Nicoli	Stand	55.00
Geo. Cohen	Stand	30.00
St. Paul Sunset Oil Co	Stand	30.00
I. Rubilow	Stand	30.00
Benj. H. Chedsck	Stand	30.00
Louis Cowe	Lunch	34.00
E. Bersbach & R. Evans	Jewelry	35.00
J. L. Hidley	Jewelry	60.00
Hed Eez Co	Medicine	30.00
Harry E. Hardy	Jewelry	25.00
Geo. M. McMullin	Stand	25.00
K. B. Mathes	Jewelry	92.00
Bullard Brothers	Jewelry	25.00
M. Flynn	Novelties	30.00
D. Fountain	Stand	25.00
E. A. Braidert	Stand	30.00
B. Metzger	Jewelry	40.00
G. W. Lawley	Stand	25.00
E. Walker	Jewelry	40.00
G. E. Gilkey	Stand	46.00
J. L. Hidley	Jewelry	40.00
Rev. J. A. Frost	Advertising	25.00
P. J. Alexander	Candy	250.00
G. W. Hanlon	Novelties	70.00
A. Glover	Stand	25.00
A. L. Allen	Potato parer	25.00
F. G. Reynolds	Jewelry	45.00
Abbey Bros	Needle Threader	25.00
F. L. Burke	Stand	35.00
W. H. Guenberger	Hardware	15.00
		$1,808.00

Woman's Building.

Purchaser.	Used For.	Receipt.
Juergens Bros	Jewelry	$25.00
Mrs. S. M. Fletcher	Stand	25.00
Josie A. Wanous	Drugs	25.00
S. M. Mussallan	Rugs, etc	25.00
		$100.00

Dairy Building.

Purchaser.	Used For.	Receipt.
Juergens Bros	Jewelry	$25.00

Agricultural Building.

Purchaser.	Used For.	Receipt.
M. Rabin	Novelties	$25.00
Juergens Bros	Jewelry	70.00
M. Flynn	Novelties	30.00
Geo. Over	Stand	30.00
John S. Basford	Jewelry	80.00
Hackney Boyton Land Co	Advertising	100.00
Bradford & Co	Novelties	50.00
Mrs. A. E. Teel	Soft drinks	10.00
Central Minnesota Land Co	Advertising	100.00
B. Brown	Stand	100.00
E. Bersback	Jewelry	30.00
C. A. King	Stand	35.00
O. Maser	Stand	30.00
Drake, Wallace & Co	Novelties	80.00
Mrs. Mary J. E. McGuire	Lunch	35.00
A. H. McCourtney	Cardinal remedies	30.00
Burchard Hulbert Investment Co	Advertising	35.00
R. F. Adams	Stand	25.00
M. Flieshman	Jewelry	35.00
Raphial Bros	Stand	25.00
		$955.00

Recapitulation.

Platted spaces	$8,933.50
Unplatted spaces	4,619.20
Main building	1,808.00
Agricultural building	955.00
Woman's building	100.00
Dairy building	25.00
	$16,440.70
Official program, estimate	1,300
	$17,740.70

REPORT OF THE FORAGE DEPARTMENT.

St. Anthony Park, Minn., Nov. 1, 1902.

To the Board of Managers, Minnesota State Agricultural Society,

GENTLEMEN: I have the honor to submit to you report of the Forage Department. In compliance with the policy of the Board of Managers, the exhibitors were furnished with the very best forage that could be obtained in the markets, at most reasonable prices, supplying this without profit to the association.

I took the opportunity to interview a number of the exhibitors as to the quality of the forage, prices, weights and prompt delivery, and, without exception, Mr. E. H. Riley, my assistant, who was in charge, was highly commended for his prompt and satisfactory manner of doing business.

Dr.		Cr.	
Gross amount of feed	$2,111.56	Cash sales	$1,523.35
John Sheldon & Co., man and team 11½ days at $5	57.50	Cash sales deducted from premium	64.70
Freight	89.77	Remaining charges	238.05
E. H. Riley	50.00	Inventory stock on hand	764.84
F. W. Fish	32.50		
John Ruff	23.00		
Extra hired help and dray	18.70		
Total	$2,383.03		
Profit	207.91		
	$2,590.94		$2,590.94

Respectfully submitted,
WM. M. LIGGETT,
Superintendent.

REPORT OF COUNTY AND DISTRICT FAIRS FOR THE YEAR 1902.

Date of Fair.	Name of County Agricultural Society.	Where Held.	Amount Rec'd from State.	Total Receipts.	Paid for Premiums.	Paid for Purses.	Paid for Permanent Improvements.	Total Expenses.
Sept. 26 and 27	Aitkin	Aitkin	$269.23	$1,270.09	$343.75	$120.00	$490.78	$1,046.37
Sept. 26 and 27	Brown	New Ulm	269.23	809.69	275.00		210.00	803.78
Sept. 16, 17, 18 and 19	Blue Earth	Garden City	269.23	1,286.00	428.80	150.00	200.00	1,270.20
Sept. 19 and 20	Carver	Carver	269.23	471.48	282.35			457.85
Sept. 30, Oct. 1, 2 and 3	Chippewa	Montevideo	269.23	3,923.36	418.80	1,906.46	360.65	4,105.24
Sept. 10 to 12	Chisago	Rush City	269.23	772.10	270.65	80.00	150.05	772.10
Sept. 17, 18 and 19	Cottonwood	Windom	269.23	935.65	346.86	52.00		1,038.72
Sept. 24, 25 and 26	Crow Wing	Brainerd	269.20	716.70	208.65	34.99	269.20	645.58
Sept. 16, 17, 18 and 19	Carlton	Barnum	269.23	1,066.03	393.05	317.25	12.75	1,091.82
Sept. 23, 24 and 25	Dakota	Farmington	269.23	560.73	267.85			454.26
Sept. 9 to 12	Dodge	Kasson	269.23	1,454.61	505.75	178.75	10.00	1,420.91
Oct. 2, 3 and 4	Faribault	Blue Earth	269.23	1,104.13	268.00	413.75		807.80
			269.23	313.35			12.25	12.25
	Houston		269.23	605.97	4.40			560.36
Sept. 18, 19 and 20	Jackson	Jackson	239.23	639.90	186.95			414.36
Sept. 11, 12 and 13	Kanabec	Mora	269.23	672.16	307.30	139.00	199.29	1,059.46
	Kittson	Hallock	134.61	1,410.47	302.10	300.99	170.50	878.34
Sept. 24, 25 and 26	Lac qui Parle	Madison	269.23	1,300.71	286.00	303.00	70.00	1,287.12
Sept. 16, 17 and 18	Le Sueur	Le Sueur	269.23	1,630.78	299.50	763.46		1,630.78
Sept. 9, 10 and 11	McLeod	Hutchinson	269.23	1,882.79	454.00	631.75		1,888.11
Sept. 9, 10 and 11	Mower	Austin	269.23	3,612.87	645.15	1,033.52	739.35	3,600.20
Sept. 24 to 27	Martin	Fairmont	269.23	1,925.49	401.00	401.00	193.06	2,481.13
Sept. 11, 12 and 13	Nicollet	St. Peter	269.23	1,766.62	293.25	642.00	106.65	1,414.63
	Watonwan	St. James	269.23	1,095.33	360.25	170.00	110.64	1,410.74
Sept. 16, 17 and 18	Pine	Pine	269.23	387.82	313.30	25.00		361.20
Sept. 26 and 27	Pope	Glenwood	269.23	869.79	271.50	225.00		598.50
	Renville	Bird Island	269.23	423.63	273.88		38.43	409.19
Sept. 19 and 20	Stevens	Morris	269.23	385.95	276.50			301.70
Sept. 18, 19 and 20	Sibley	Arlington	269.23	1,238.87	286.50	365.50	322.60	1,538.80
Oct. 9 and 10	St. Vincent Ind. Society	St. Vincent	134.62	527.31	134.75			271.59
Sept. 17, 18 and 19	Shakopee	Shakopee	269.23	1,183.68	271.00			1,120.82
	Wright	Howard Lake	269.23	1,041.79	279.75	304.48	88.67	1,038.85
Sept. 11, 12 and 13	Worthington	Worthington	269.23	5,928.61	634.97	782.65	4,132.14	5,995.18
Sept. 17, 18 and 19	Wabasha	Plainview	269.23	1,180.51	286.50	164.20	167.65	987.22
Sept. 9, 10, 11 and 12	Winona	Winona	269.23	4,925.66	984.25	105.00		4,677.96

St. Paul, Minn., Sept. 9, 1902.

Hon. A. R. McGill, Postmaster, St. Paul, Minn.,

DEAR SIR: I have the honor to submit herewith a report of the business transacted at the fair grounds postal station for the six days of its existence, September 1st to 6th inclusive:

Date—1902.	Number Calls.	Mail Received.		Mail Dispatched.	
		First Class.	Other.	First Class.	Other.
September 1	697	168	18	434	9
September 2	740	395	14	493	13
September 3	841	343	39	583	24
September 4	990	315	29	422	22
September 5	979	170	37	393	18
September 6	852	151	21	377	23
Total	5,099	1,542	156	2,702	109
1901	4,718	1,324	76	2,278	101

Date—1902.	Stamps, Etc., Sold.	Money Orders.		Special Delivery.	
		No.	Amount.	Fee.	Letters.
September 1	$33.85	4	$ 18.52	$ .27	5
September 2	39.45	6	100.00	.56	4
September 3	40.72	9	185.63	.84	9
September 4	34.07	16	331.87	1.47	5
September 5	42.13	9	525.00	1.80	5
September 6	34.47	13	696.15	2.35	9
Total	$224.69	55	$1,857.17	$7.23	37
1901	44.56	27	875.65	3.56	51

These figures indicate a large increase of business over last year's transactions and show a gain of $180.13 in stamp sales, as well as $981.52 in money order business, the increase being twenty-eight orders.

The accommodations furnished by this station were highly appreciated by its patrons, and Mrs. E. R. Lawrence, who was in charge of it, was highly complimented upon the efficient service rendered.

Your obedient servant,
H. J. HEDLICH,
Superintendent Delivery.

St. Paul, Oct. 20, 1902.

Mr. C. N. Cosgrove, President State Fair Association, Hamline, Minn.,

My Dear Sir: Permit me to say a word in regard to the fish exhibit we had at the state fair this year. While not up to the expectations we had, still it was a source of pleasure to a great many people, and was especially valuable along educational lines. As I said in the report I made last year, it is but the beginning of greater things now hoped for, and we have in our possession the blue prints used by the United States government in the construction of the aquariums at Buffalo, furnished me through the courtesy of Mr. Ravanell, the official in charge and the assistant under Mr. Bowers, the United States Fish Commissioner.

Now, it is the object of the Minnesota Game and Fish Commission to see a permanent fish exhibit at the Minnesota State Fair. We believe it to be one of the very best attractions that can be obtained because, as I have often said before, ninety per cent of the people of Minnesota, although living in a state blessed with an abundance of fish and game, are lamentably ignorant of the names and habits of our native fish, and the exhibit will bring that matter before them so that they can see the fish and know the names.

But the exhibit we have had for the last two years has been very crude; the proper facilities have been wanting. What we aim to have in the future is an aquarium built along permanent lines. The cost, of course, will be all in the beginning. All it will take to run it will be the attendance during fair week. We are going to ask the legislature for an appropriation to build a proper aquarium so that we can exhibit all the native fish found in Minnesota waters. We want this aquarium to be not only permanent, but attractive, and, as I am satisfied that it will be an exhibit that will attract thousands of outsiders who would not otherwise come to the fair, we ask the co-operation of the fair management to help secure this appropriation, and if we get it we will promise the State Fair Association an attraction second to none other.

MINNESOTA STATE GAME AND FISH COMMISSION,
By SAM F. FULLERTON,
Executive Agent.

To the President and Board of Managers of the Minnesota State Agricultural Society,

Gentlemen: Herewith please find a detailed report of all tickets taken in our department during the fair of 1902. The total number of tickets taken this year is 333,455, against 262,525 last year.

Among the experiments tried in our department this year, the most important were the turnstile entrance at the grand stand and the new reserved seat sections in the grand stand. Both were successful, and the new reserved seats brought in considerable additional revenue without a great deal of extra expense. Our report does not show nearly all the reserved seats sold, as under the present system we have no way of finding out the number of reserved seats sold inside. On this account, I would suggest that some different system be devised for handling these tickets.

In regard to the general ticket system, I would strongly recommend that all the different forms of badge complimentary tickets be replaced by coupon tickets or separate helpers' tickets. We find these badges make more trouble and are more misused than any other form of complimentary ticket.

Respectfully submitted,
ROBT. H. COSGROVE,
Superintendent of Gates.

GRAND STAND.

Day.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.	Total.
Labor Day	142	....	....	....	....	....	....
General admission	3,954	7,618	8,199	10,371	7,177	3,052	40,513
Reserved seats	315	737	492	724	580	253	3,101
Complimentary	303	452	425	578	396	439	2,593
One-day passes	938	1,239	245	1,900	1,640	1,535	7,497
Totals	5,652	10,046	9,361	13,573	9,793	5,279	53,704
Night.							
Labor Day	85	....	....	....	....	....	....
General admission	4,779	5,290	6,695	10,836	8,104	2,508	38,297
Reserved seats	348	390	448	783	725	258	2,952
Complimentary	313	289	352	526	493	436	2,409
One-day passes	760	1,290	900	1,208	2,223	1,723	8,104
Totals	6,285	7,259	8,395	13,353	11,545	4,925	51,762
Totals for days	5,652	10,046	9,361	13,573	9,793	5,279	53,704
Totals for nights	6,285	7,259	8,395	13,353	11,545	4,925	51,762
Grand totals, days and nights	11,937	17,305	17,756	26,926	21,338	10,204	105,466

HELPERS' TICKETS.

Department.							
Privilege	1,677	1,742	1,792	1,835	2,699	1,967	11,712
Secretary's office	178	97	217	250	204	170	1,116
Machinery	401	542	559	646	825	356	3,329
Exposition	262	262	300	362	441	253	1,880
Dairy	48	77	89	70	93	55	432
Woman's Federation	15	17	30	33	23	21	139
Honey	12	14	21	20	16	12	95
Horticultural	20	20	22	27	23	11	123
Sheep	25	33	24	49	138	62	331
Horse	31	34	41	30	31	20	187
Agricultural	33	37	40	36	33	27	206
Poultry	30	25	30	32	18	19	154
Cattle	28	16	26	24	31	6	131
Forage	5	4	4	8	1	2	24
Good roads	15	....	....	....	....	....	15
Miscellaneous	5	....	3	13	103	....	124
Women's	8	4	2	4	1	3	22
Totals	2,793	2,924	3,200	3,439	4,680	2,984	20,020

ANNUAL REPORT OF THE SUPERINTENDENT OF GATES.

	Monday.		Tuesday.		Wednesday.		Thursday.		Friday.		Saturday.		Total.		Total Day and Night.
	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	Day.	Night.	
General admission	11,093	15	18,202	26	23,428	67	29,003	97	15,906	88	7,648	42	105,280	335	105,615
Night admission	......	1,219	......	1,376	......	2,611	......	4,190	......	3,927	......	1,209	......	14,532	14,532
General half fare	1,558	2	2,631	......	3,533	1	3,988	3	1,841	......	1,058	......	14,609	6	14,615
Night half fare	......	24	......	50	......	28	......	55	......	44	......	23	......	224	224
Season coupon	193	13	329	55	364	52	433	30	370	32	333	23	2,022	205	2,227
Ry. general admission	1,456	86	4,935	83	6,242	146	6,301	186	3,065	172	1,211	590	23,210	1,263	24,473
Ry. half fare	14	......	99	......	145	1	133	1	79	3	8	33	478	38	516
Labor Day, half fare	295	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Labor Day, full fare	2,568	57	......	......	......	......	......	......	......	......	......	......	2,863	57	2,920
Total paid admisison	17,177	1,416	26,196	1,590	33,712	2,906	39,858	4,562	21,261	4,266	10,258	1,920	148,462	16,660	165,122
Season complimentary	1,160	164	1,589	156	1,609	248	2,032	268	1,703	257	1,434	318	9,527	1.411	10,938
One-day passes	421	39	676	53	743	141	1,515	252	1,119	246	344	363	5,318	1,094	6,412
Badge slips	2,419	349	3,022	522	3,709	951	4,565	1,019	3,973	1,125	3,147	696	20,835	4,662	25,497
Helpers' tickets	2,414	379	2,682	242	2,882	318	3,102	337	4,335	345	2,475	509	17,890	2,130	20,020
Total complimentary admission	6,414	931	7,969	973	8,943	1,658	11,214	1,876	11,130	1,973	7,900	1,886	53,570	9,297	62,867
Grand total paid admission	17,177	1,416	26,196	1,590	33,712	2,906	39,858	4,562	21,261	4,266	10,258	1,920	148,462	16,660	165,122
Grand total comp. admission	6,414	931	7,969	973	8,943	1,658	11,214	1,876	11,130	1,973	7,900	1,886	53,570	9,297	62,867
Sum total	23,591	2,347	34,165	2,563	42,655	4,564	51,072	6,438	32,391	6,239	18,158	3,806	202,032	25,957	227,989
Total day and night	25,938		36,728		47,219		57,510		38,630		21,964		227,989		

Policing grounds and farm gates, total.. $182.60

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